



FIFTH AVENUE, NEW YORK: TRAFFIC REGULATED BY SIGNAL LIGHTS (SEE SIGNAL TOWER IN CENTRE)

## Higher Building in Relation to Town Planning

BY RAYMOND UNWIN [F.]

[Read before the Royal Institute of British Architects, Monday, 17 December 1923]

THERE was once a great controversy which, I believe, profoundly moved the theological world of its day, if it did not even threaten the peace of empires, as to how many angels could stand on a needle's point. To-day we look back with wonder, not perhaps untinged with some slight contempt, that serious people could have spent their energies in such a discussion.

But examining, as I have been constrained to do during the last twenty or thirty years, the attempts which mankind is making in various parts of the world to find out, not how many ethereal angels, but how many ponderous people and still more ponderous motor-cars can occupy the same square yard of ground at the same time, I begin to wonder whether the superiority of our intelligence to that of our theologically minded forefathers is as obvious as we should like to think!

Twenty or thirty years ago in this country it was generally assumed that great gains could be secured by overcrowding dwellings upon the land; that some dire economic necessity arising from

these reputed gains compelled us so to develop our towns. That fallacy has now been pretty well exploded. Most of those who have examined the matter are agreed that, if people will, land can be developed at a density of ten or twelve houses to the acre at little, if any, more, and sometimes at even less cost per house, than the same land can be developed for the same type of house, at a density of twenty or thirty to the acre; that so far from there being anything to be gained from overcrowding dwellings on land, the fact is that such overcrowding yields less total return to the landowners, and affords a dearer plot for the occupant (Diagram 1). So that apart from other disadvantages, congestion of dwellings is really an expensive luxury. Unable to believe, however, anything so simple as that there is plenty of room for everybody; that it is crowding, the attempt of two people to stand on a space that is only large enough for one, which causes most of our urban difficulties; modern business intelligence is now proposing to adopt vertical overcrowding. Unless we are careful, it will not be

content without actual and disastrous demonstration that this particular form of overcrowding has even less to be said for it than the horizontal kind. The fact that this method has been fairly well tested in America; that it has created there urban problems of a difficulty exceeding anything which we know even in this great city; that 183 American towns containing 40 per cent. of the urban population have already adopted zoning ordinances, and that the remaining cities are hurrying after one another pell-mell to adopt regulations limiting the

struggling to remove, it seems worth while to examine somewhat carefully the conditions which prevail in those cities, and to realise what would be the effect in London if we were to adopt the method of expansion upwards which the Americans are trying to check.

The arguments that can be brought against the adoption of high buildings are many and weighty. The law of diminishing returns applies to such buildings in almost all respects. With every added storey the effective floor area per storey is reduced,

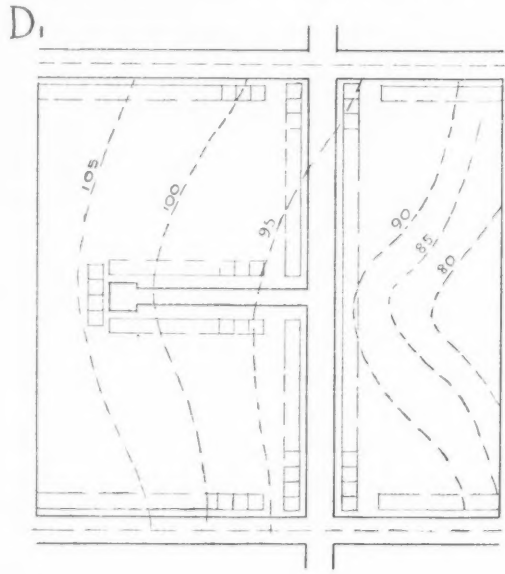
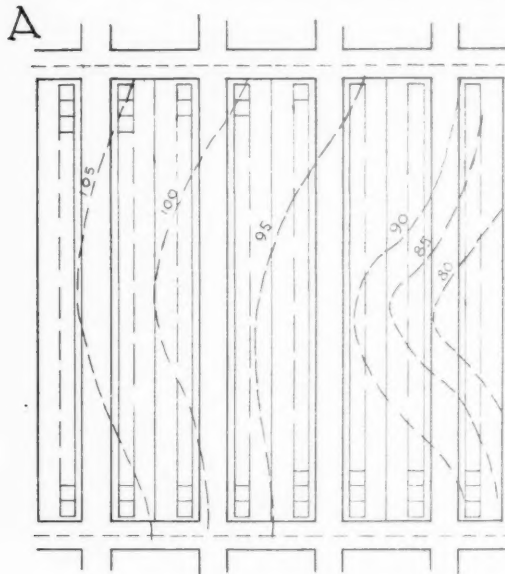


DIAGRAM I

No. to the acre	..	..	..	..	22
Area of plot	..	..	..	..	156 sq. yds.
Cost of roads per house	..	..	..	..	£57'6
Cost of land per house	..	..	..	..	£9'22
Total cost per plot	..	..	..	..	£66'82
Cost per square yard	..	..	..	..	8s. 7d.

No. to the acre	..	..	..	..	12
Area of plot	..	..	..	..	351 sq. yds.
Cost of roads per house	..	..	..	..	£48'48
Cost of land per house	..	..	..	..	£16'66
Total cost per plot	..	..	..	..	£65'14
Cost per square yard	..	..	..	..	3s. 8½d.

height of buildings, as drastic as the vested interests already created will allow, does not seem enough to convince some of our urban theologians that many men cannot stand on the same flagstone at the same time, or more than one car move at one moment on an identical piece of roadway. Nevertheless, in the hope that it is not too late to save our London from copying mistakes which New York, Chicago, and other American cities now regret, and the evil results of which they are now desperately

while the cost per square foot is increased; the greater proportional number of lifts required take their toll of space from each of an increasing number of floors. You do not dispense with transportation by going up; you merely change the horizontally moving omnibus for the vertically travelling lift, and incidentally make walking for even short journeys far more difficult.

One witness before the New York Height of Buildings Commission calculated that the average

## HIGHER BUILDING IN RELATION TO TOWN PLANNING

time taken to reach the 30th floor would equal that of taking the express train on the subway to a spot one mile distant.

The same law holds good as to light. Every storey added tends to darken all the floors below. In spite of the bright light of New York, the number of dark rooms in which artificial light must always be used is far greater than with us. The consequent injury to health and loss of efficiency is said to be serious; eyesight is injured; tuberculosis and other diseases are encouraged. Much evidence was also given showing that high buildings lead to unstable property values. They unduly inflate the price of land and concentrate property development in small areas where the maintenance of values is very speculative, thus preventing a more widely distributed and stable improvement. The values of the lower rooms in adjacent buildings, whether themselves high or low, are depreciated by the erection of higher buildings which diminish their light and obstruct their ventilation. It is true that one advocate of higher buildings gave as his reason the pleasure of living on the highest floors; but he overlooked the fact that the higher the buildings the smaller must be the proportion of people who can have the benefit of living at the top.

I do not propose to enlarge on these or other similar arguments to-night because the conclusive argument against high buildings is that no real gain to the community is secured by adopting them. As hitherto used, they have so far deprived each other of light and air, and so seriously congested the traffic in the streets, as largely to destroy their own value and to deprive themselves of reasonably comfortable access even if they could be spaced so far apart as to allow proper light and air, and if the streets could be laid out of such widths as to carry their concentrated traffic without congestion, the total area covered would then be little, if any, less than that required to provide for the same community with buildings of normal height.

This more general or town planning aspect of the problem has acquired a special degree of urgency for us during the last few years, because we appear to be following another lead of our American cousins in regard to the extensive use of the private motor-car. We are following far behind American attainments, but still evidently following. In that country there are something like twelve million cars, or an average of about one car for every ten people, including men, women, and

children. There are, moreover, several individual towns in which the number of cars registered has risen to one for every five of the population. In some of these towns it has been calculated that there is seating accommodation in these cars for the whole of the population to go joy riding at the same time!

It is not yet apparent what will prove to be the saturation point in regard to ownership of motor-cars. Mr. Ford, who has contributed more than anyone else to the supply, does not consider that that point has been nearly reached; and I am informed that the industry in America is at the present time turning out approximately half a million cars per month. While they export a good many, the majority are for the supply of their own population. We in this country have little idea what this means. We still number our total possession of cars in hundreds of thousands, and our annual output in tens of thousands. While we may hope, as much for the pleasure of the motor-car owner as for the safety of foot passengers, that we shall not reach numbers comparable with those found in America, there is yet little doubt that our present number will expand enormously. It is increasing even in the present time of depression at a rate approaching 25 per cent. per annum. We must therefore reckon with a rapidly extending use of the private motor-car as one of the conditions which must be dealt with in the future. There is little evidence that this condition is likely to be accompanied by any diminution in other kinds of vehicles, such as the motor omnibus, which is already threatening to present one of our most serious traffic problems.

To understand the traffic aspect of the high building question it is necessary first to realise the extent to which an increase in the height of buildings affects the demand on street space. Fortunately this problem of height has recently been investigated with great care by the Chicago Real Estate Board, in connection with the fixing of height limits throughout that city. In their report they give precise data for buildings ranging from five to thirty storeys high, erected on one particular corner plot, including the net rentable floor space, cost, and other matters. There appears to be a fairly constant relation between the net rentable floor space and the total day population. I have checked it in connection with one or two individual buildings like the Woolworth Building in

# DENSITY TAKEN FOR CARS AND PEOPLE

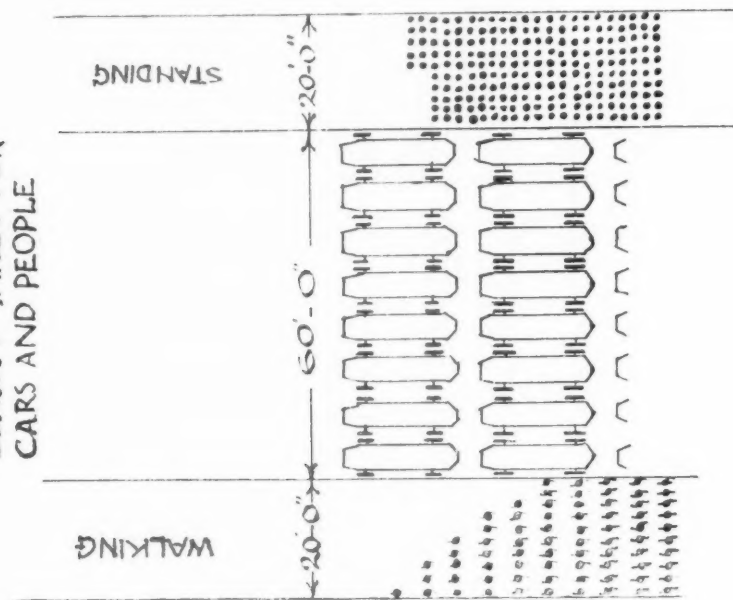


DIAGRAM 2

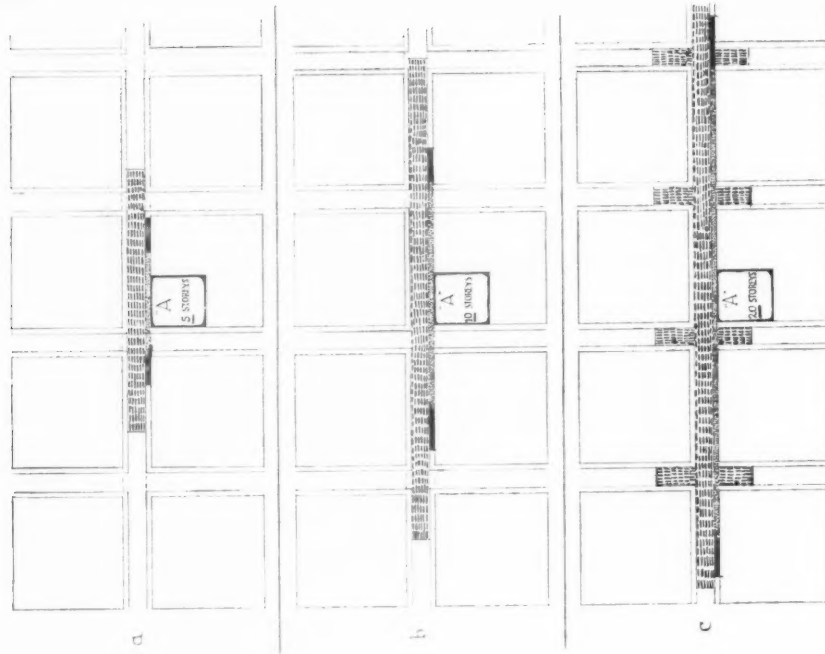


DIAGRAM 3

Diagram showing amount of street area required with buildings of different heights to accommodate the average number of people in the building "A," when standing, and the average number of cars owned by them



## HIGHER BUILDING IN RELATION TO TOWN PLANNING

New York, and also in connection with the whole of the Loop area of Chicago, and I find that a figure of about 45 square feet of rentable floor per head of population appears to be near the mark. To be on the safe side I propose, in my calculations, to take 50 square feet of net floor space per head of population—that is, total day population. It is quite simple to establish a definite relation between this population and the footpath area of the roads, and for this purpose I have assumed that, to provide standing room, a space 2 feet by 2 feet is necessary for each person; and to provide for walking, on the average a space of 2 feet by 5 feet is necessary. It will be realised that crowds of people walking along a footpath rarely average so little space as this. It is not possible to establish a definite relation between the road surface and all the various vehicles required to serve buildings of different height; but as we have in America a fairly reliable relation between population and the number of motor-cars owned, it is easy to establish a relation between the floor space of the buildings and the road space that would be required to accommodate these motor-cars; this relation is sufficient for my purpose. The average over-all length of a number of motor vehicles, I find, is 20 feet; and allowing a little space for the cars to stand clear of each other, about 24 or 25 feet is as little as can be allowed for each car. I have further assumed that the cars occupy a width of road space varying from 7 feet 6 inches to 8 feet, according as the carriage-way most nearly divides up into a certain number of car widths. These densities of occupancy of footway and road are illustrated in Diagram 2. The building which is taken for comparison of different heights was designed to stand on a corner plot in the Loop area, measuring 160 feet by 172 feet, with an alley-way at the rear. With five storeys I find that this building would have a day population of 2,018, and taking the average width of the roadways in the Loop area, which is about 86 feet, and the footway in front of the building as one-fifth of this, or 17 feet, I find that the people occupying this one building would take up a length of 504 feet of footway if they were standing, and a length of 1,260 feet if they were walking. It has been observed that the average speed of people walking on the footway in a crowded condition comparable to this would be 224 feet per minute, so that this length of 1,260 feet of footway would be occupied for five and a half minutes before the occupants of

this one building could pass away from it. If the building were increased to ten storeys the population would not be doubled—that is, 4,036—but would be about 3,704, and the length of footway to accommodate this number walking would be 2,315 feet. The time in this case for the people to pass would be ten minutes. With an increase to twenty storeys the figures would be—population accommodated, 6,930; length of footway occupied, 4,330 feet; time to pass, 20 minutes. Above twenty storeys, owing to the large amount of floor space occupied by lifts on the lower floors, the increase of available space in proportion to the number of added floors becomes steadily smaller, so that at thirty storeys, instead of a floor space enough to provide for 12,114 persons, the population would only be about 9,368; the length of footway occupied by even this number would, however, be 5,853 feet, or considerably over a mile; and the time required for the people to pass any point on that footway would be nearly half an hour.

Turning now to the conditions in the carriage-way; it is safe to assume in America that the class of people which forms the day population in city buildings, including as it does a minimum proportion of children and others not owning cars, will at any rate own the average number of one car to every ten people. On this basis, if these cars were to attend at the building to bring people to work or take them away in the evening, and were packed as closely as already indicated, they would fill the whole of carriage-way for a length of 804 feet with a five storey building, 1,480 feet with a ten storey building, 2,772 feet with a twenty storey building, and 3,744 feet, nearly three-quarters of a mile, with a thirty storey building. These lengths of road required are also illustrated in Diagram 3. If half the carriage-way only were taken, on the ground that the other half of the street should be left for the use of the buildings on the other side, these lengths would have to be doubled; it may reasonably be said, therefore, that with the present extent of ownership of motors in America, the cars require nearly twice as much length of roadway to accommodate them as the people would require walking along the footways. We must not forget, in considering these figures, that no account has been taken of the increase of other vehicles, particularly trade vehicles, required to deal with the growing volume of merchandise that would be handled by the increasing

population. It is, perhaps, not necessary to take account of the increase in motor omnibuses and other similar vehicles, because we have reckoned the whole of the people as either walking or riding in cars. On the other hand, it is a well-known principle, which applies as far as I know generally in all towns, that the extent of public passenger traffic increases much faster than the increase of population. In fact, the increase of traffic and of the number of journeys per head is frequently more than the square of the increase of population. That has been so both in London and New York. To the extent to which this holds true, Diagram No. 3 understates the increasing demand on the streets due to increase in height.

We may take one more example in connection with which accurate information is available. I refer to the Woolworth Building in New York.

over any part of that space. Diagram 4 illustrates this case.

Assuming, again, one car for ten people, and that the whole of the roadway were occupied, the cars would require 4,200 feet of roadway to provide standing room. Should it be arranged for these cars to draw up at the door of the building to take their owners home, allowing an average length for car and space to move of 25 feet, the queue of cars in single file would be between six and seven miles long.

In view of these figures you will hardly be surprised that the utility of the private car is diminishing, or wonder at the enormous congestion of traffic in cities like New York and Chicago. It is only because the very tall building is quite exceptional in New York, and even on Manhattan Island is confined to very restricted areas, that an absolute deadlock has not already been reached. The vast

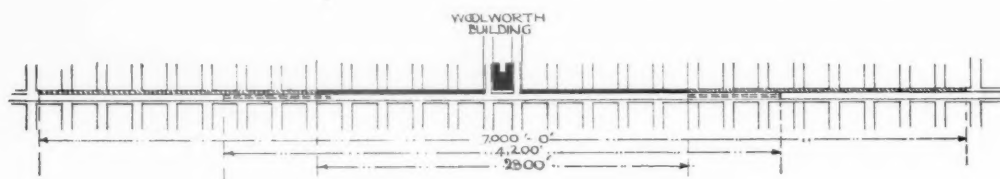


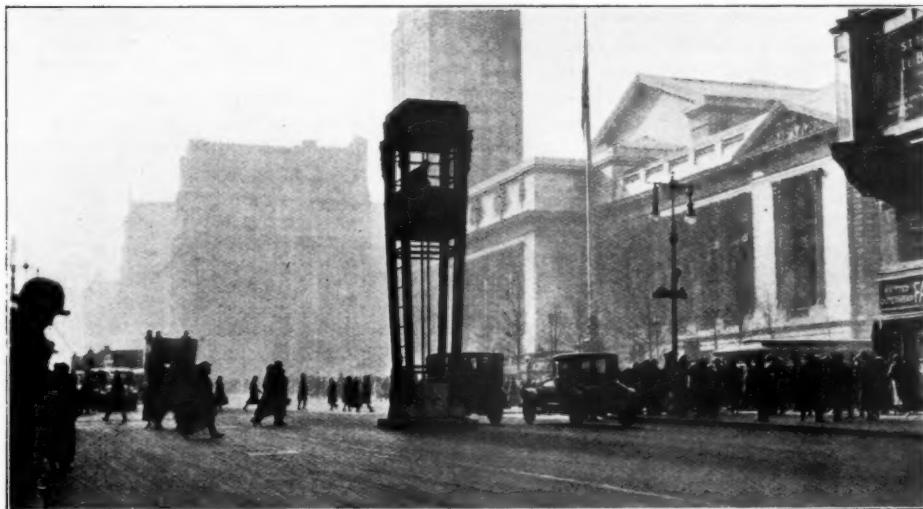
DIAGRAM 4

Showing the extent of footway and roadway required by the day occupants of the building and their motor-cars

This building stands on a plot 151 feet by 195 feet ; it has streets on three sides of it ; it has, including basement, 28 storeys covering the whole area of the building apart from lighting wells, and has, further, a tower containing a like number of additional storeys. The day population of the building is 14,000 people. In addition to this there are large numbers of visitors that I have not reckoned. The roadway in front of it is less than 100 feet, but for convenience we will take the usual New York main avenue width of 100 feet, having footways 20 feet wide and a 60-feet carriage-way. On the bases we have taken, therefore, the footway would accommodate a maximum of ten persons walking abreast, and I have assumed that the carriage-way would take eight motor-cars abreast, allowing only 7 feet 6 inches per car. The day population of this one building would therefore occupy 2,800 feet of side-walk standing packed together, or, if walking, 7,000 feet—over a mile and a quarter ; and they would occupy a minimum of half an hour in passing

majority of buildings, even in the downtown area, as may be seen from a recent aeroplane photograph, are still of the old height of five or six storeys. Even as it is, the problem of traffic is almost insoluble. Along Fifth Avenue it is now regulated by signal lights. When the white light shows, the stream flows along the avenue ; when the green light shows, the traffic along the whole length of the avenue thus controlled must stop at every cross street. These cross streets occur at intervals of only 88 yards centre to centre, and the whole of the traffic must stop with the signal, whether any vehicle requires to cross the street or not. It is not often that at any of the cross streets there is nothing waiting, but as the whole of the stream must be stopped long enough on the average to allow the traffic of the busiest cross streets to pass, it must be held longer than necessary at all the less busy cross streets. The arrangement is, however, in spite of these drawbacks, considered to be a great improvement on the previous condition.

## HIGHER BUILDING IN RELATION TO TOWN PLANNING



SIGNAL BOX, FIFTH AVENUE, NEW YORK

The difficulty of dealing with the foot passengers is no less than that of the road traffic. It is estimated that the subways could deal, as a maximum, with 60,000 people per hour, if they could get that



NEW YORK: PEOPLE LEAVING ONE HIGH BUILDING

number to the trains. But we have already seen that the 14,000 people from the Woolworth Building would themselves occupy over a mile and a quarter of one of New York's main footways, and it would take them half an hour to enter the station. The congestion at the entrances to the tube stations under these circumstances can hardly be surprising, but this is not the worst. The condition has been reached when it is doubtful whether any relief can be secured by constructing new tube railways. Even with the present limits of height allowed under the recent zoning laws, I was informed by the engineer in charge of these railways, and the figures we have looked at confirm this, that buildings may and probably would be erected on two or three blocks adjacent to any new tube station, the population of which would fill the railway for the best part of an hour at the busiest time of the day. The total congestion, in fact, might easily be increased instead of being relieved by the new facilities. The advocates of higher buildings seem to take the view that it is the business of the public authorities who are responsible for the streets to find accommodation for any amount of traffic which their buildings may originate. Some of them, it is true, suggest that the owners might agree to a strictly moderate set-back of their building for every increased storey in height. What general benefit this would afford beyond a little local relief in front

# BUILDING BLOCKS OF THE SAME AVERAGE SIZE AS THOSE IN THE LOOP CHICAGO.

DIAGRAM SHOWING ROAD SPACE REQUIRED TO GIVE EQUAL ACCOMMODATION  
IN PROPORTION TO FLOOR AREA  
BUILDING BLOCK REMAINING THE SAME SIZE.

132

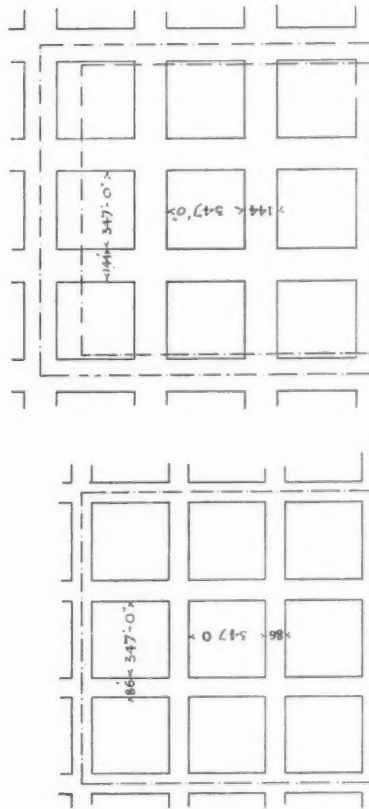


DIAGRAM 5  
"A" 5 STOREYS  
"B" 10 STOREYS  
"C" 20 STOREYS

DIAGRAM SHOWING ROAD SPACE REQUIRED TO GIVE EQUAL ACCOMMODATION  
IN PROPORTION TO THE NUMBER OF STOREYS.  
BUILDING BLOCK REMAINING THE SAME SIZE

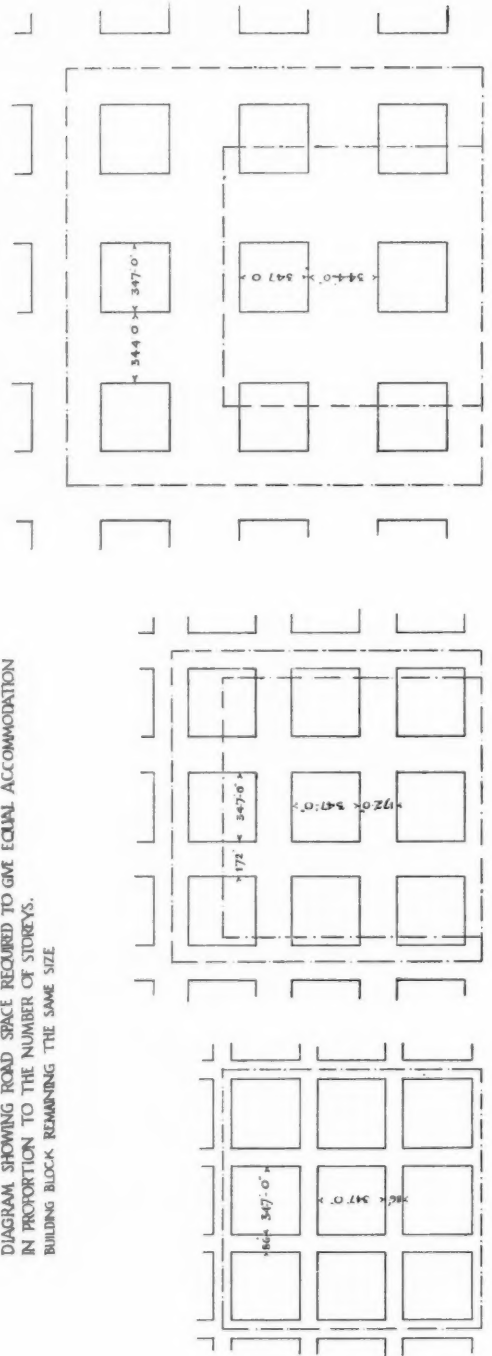


DIAGRAM 6  
"A" 5 STOREYS  
"B" 10 STOREYS  
"C" 20 STOREYS

## HIGHER BUILDING IN RELATION TO TOWN PLANNING

of the building itself is not very clear, particularly in view of the length of footway, far exceeding the length of the building, which we have seen is required to provide bare standing space for the occupants of the high buildings. Many times even that length must be congested by those occupants before the volume of traffic is dissipated. But it will be well to prove the futility of such suggestions by showing what extra space would actually be involved. For this purpose I cannot do better than take the conditions in the central area of Chicago, which is locally known as the Loop because it is roughly contained within the loop lines of the overhead railways. Full particulars are available in regard to this area, and being regularly planned on the chequer-board system it is easy to reduce conditions to diagrammatic form. This area is one of the most congested in the world; although many of the buildings—those coloured red on the plan—exceed twelve, and some of them—coloured blue—exceed seventeen storeys in height, there are no skyscrapers rivalling the Woolworth and the Equitable of New York; the average height for the whole area has been estimated as equal to seven storeys.

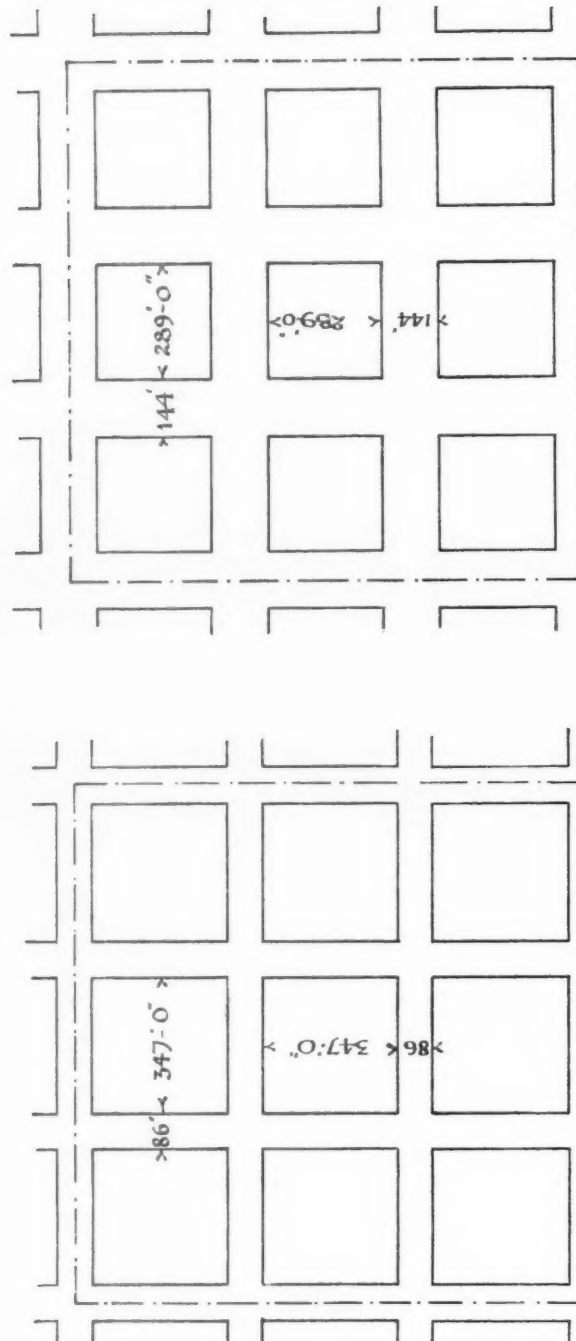
I have had some recent experience of the conditions of traffic in this district, and there can be no question that the streets, although they represent about forty per cent. of the total area of the ground, are quite inadequate to carry the present traffic with reasonable despatch, let alone comfort. I am satisfied that they would be taxed to the limit of comfortable conditions if the average were five storeys instead of seven. Neglecting the cumulative increase in traffic which universal experience shows to arise from increased population, and assuming that full value is obtained by increasing the area of roads *pro rata* with the increase of the density of population, I have calculated the roads that would be required to give the same relative accommodation if the average height of the buildings were increased from the assumed five to ten and to twenty storeys. In the first instance, keeping the average size of the building block the same, I find that for ten-storey buildings to give the same ratio of street area to net floor accommodation as at present, the widths of the road would have to be increased from their present average of 86 feet to an average of 144 feet; and if the storeys were increased to twenty, the width of the streets would require to be 241 feet. Diagram 5 shows a few of these blocks to illustrate this point. If the

increasing intensity of traffic were assumed to balance the loss of floor space, and its volume were taken to expand *pro rata* with the increased number of floors, which is probably nearer to the actual truth, a still greater increase of road areas would be required (see Diagram 6). It will be noticed that if such an expansion of road space had to be applied to the whole Loop area, in order to accommodate traffic resulting from the increased height of buildings, it would be necessary to pull down a considerable part of the town surrounding this area to provide the additional land required! It is obvious, however, that any such increase in the width of the roads, even on the more modest scale first shown, would be impracticable, and that if it were attempted the traffic would not in fact be relieved to a degree anything approaching the extent of the increase. The delay at every crossing for vehicles, and still more for foot passengers, owing to the increased width of the streets, would be very great. This is already noticeable to an Englishman in New York, where most of the north and south avenues are 100 feet, and the cross streets 64 feet, wide. The time occupied in crossing these many streets, and the extra delay to traffic in consequence, is obviously a serious factor, as compared with the conditions in the City of London, for example.

But suppose, instead of keeping the building block the same size, we try to follow literally the suggestion of some of the advocates of high buildings in this country, and provide sufficient additional road space by means of a set-back, thus reducing the size of the building block. How then should we fare? This also has been tested, and is shown on Diagram 7. Taking the same bases of calculation as before, and assuming that the additional accommodation required is equal to the increase of the total available building area from five to ten storeys, I find, in order to provide the necessary set-back around one of the average blocks in the Loop, that the reduction in the size of the building to allow for extra width of road enough to maintain a constant relation between floor space and road area would just about represent the area provided in an additional five storeys; so that instead of increasing the building from five to ten storeys, the building would be required to be increased to fifteen storeys to provide the required accommodation. In other words, if the owner of the aspiring building is to provide



DIAGRAM SHOWING WITH SAME ROAD SYSTEM THE WIDENING OF ROAD  
& CONSEQUENT REDUCTION OF BUILDING BLOCK TO GIVE SAME  
ROAD ACCOMMODATION IN PROPORTION TO FLOOR AREA.



5 STOREYS

15 STOREYS SAME FLOOR AREA AS  
10 STOREYS IN ORIGINAL PLOT

DIAGRAM 7

## HIGHER BUILDING IN RELATION TO TOWN PLANNING

adjacent only to his own frontage an addition to the existing road space *pro rata* to the increase of net available floor area, his loss of land will be so great that he will have to add double the number of floors that would have been required on his original area! Even then only the roads adjacent to the building block would have been widened.

If the difficulty of accommodating the pedestrian and the moving traffic is great, the case of the standing motor-car is even worse. Of the 60,000

the promoters of the great town-planning scheme designed by Daniel Burnham, of which this park is a conspicuous feature, are not free from anxiety as to how they are to recover this area from the motor owners to lay it out and plant it.

Owing to the fact that the motor-car is mainly used in America by people who do not employ a chauffeur, the question of parking the cars already presents an unsolved problem. The difficulty is felt especially in the more congested areas, where



MICHIGAN AVENUE, CHICAGO, NORTH OF RANDOLPH STREET, BEFORE IMPROVEMENT  
Showing the pack of cars, one way traffic only

motor-cars which the present occupants of the Loop own among them, only 3,500 can find places where standing is permitted within the Loop area. If the whole of the road space were packed solid with cars, there would still be only standing room for 11,000 cars, or something like one-fifth of those owned. As a matter of fact, the car owners of the Loop area have appropriated the large open space between Michigan Avenue and the Lake, set aside for Grant Park, and it is no uncommon thing to see 25,000 motor-cars, or more than twice the number that would fill the streets of the Loop, parked at one time on this gigantic motor garage. Indeed,

it has had to be solved by forbidding cars to stand for more than a few minutes, and then only in the less frequented streets, which means that the majority of car owners can no longer use them for going to and from their work. Even in small cities, however, it is becoming a serious problem; and plans of city improvements now indicate not only the lines of traffic provided for, but also the amount of space left over for parking cars against the sidewalk. It is common in cities of quite moderate size to have to drive round several blocks, or along several streets, before a space can be found in which to park the car. Anybody going from

business to his club to lunch may frequently find that in walking to the car and back again, and walking from the nearest parking space to the club and back again, he has travelled a greater distance than if he had walked in the first instance from his business to the club!

Without pursuing this matter further, enough has, I hope, been said to prove the main contention which I put forward to-night—that increase in height of buildings necessarily involves augmented street traffic; that where the traffic has already reached the comfortable capacity of the streets, any further increase in height must cause or increase congestion, with consequent loss of time and efficiency for all the users of the street. Further, that this increase cannot in practice be met by street widening, because the utmost that can be done in this direction can barely cope with the other causes which in all growing modern towns are tending to swell the volume of street traffic.

Increased height, therefore, means increased traffic congestion. It is urgent that we in London should realise this while there is yet time, and most important that we should compare our circumstances with those in America, where we may observe the traffic conditions which are likely to arise here in a few years.

For this purpose we may compare the conditions which we have been examining in the Loop area at Chicago with those in the City of London. The areas are in many ways comparable; each is the main commercial centre of a great city; the City of London, which has an area of about a square mile, is the heart of a town and urbanised region the total population of which approaches nine millions; the Loop area in Chicago, about one-third of a square mile, is equally the centre of a total population well over three millions; both areas are served by numerous railways, street cars, etc., and contain a large number of official and commercial buildings, retail stores, and warehouses; one is bounded on the south side by the River Thames, the other on the east side by Lake Michigan. The City of London contains about 638 acres, the Loop in Chicago only about 212 acres; the day population of the City of London is about 416,000, or 614 persons to the acre; the day population of the Loop is about 600,000, or 2,830 persons to the acre; in Chicago the total streets represent about 40 per cent. of the area; in London, including private back streets, only about

28 per cent.; in Chicago few of the streets are less than 46 feet wide, some of them are over 100 feet, and the average width is 86 feet; in the City of London the average width of the streets, including some which are footways only, is about 28 feet. In spite of the relatively liberal provision of sidewalks on these wide streets in Chicago, it is quite common at busy times to see the foot passengers swarming off the footway until they occupy the whole of the street area from side to side, and completely stop for the time being all vehicular traffic. At other times, the queues of vehicles waiting to pass some of the important crossings accumulate to such an extent that the rearmost vehicles in the queue may have to wait three times before they are able to pass one of these crossings. In other words, the queue becomes more than twice as long as can be allowed to pass during the few minutes' interval that it is practicable to hold up the opposite stream of traffic.

These conditions have arisen from the intensive use of a limited number of tall buildings from ten to twenty storeys high, sufficient only to raise the average height over the whole area available for building to seven storeys. If the land in the City of London should ever be used to the same degree of intensity, and sufficient high buildings were allowed to give an average of seven storeys as in the Loop, I estimate that the day population would be 1,845,000, instead of the present 416,150. In that case the narrow streets of the City would have to carry four or five times the present volume of traffic, which is already far in excess of their comfortable capacity. We must realise that if not one single storey is added to any building in the City of London, the increased use of the private motor car and other causes will increase the traffic in the area to a very serious extent.

Unfortunately I have come across no evidence that the increasing use of the private motor-car causes a diminution in the patronage of public means of conveyance. On the contrary, experience shows that this demand for public transportation facilities is still rapidly growing. The increasing extent to which the streets of London are now being occupied by the motor omnibus must be apparent to everybody, and the lengthening queues of these 'buses which accumulate on important road crossings already present a formidable appearance. It is clear, therefore, that, quite apart from any increase in the height or volume of buildings

## HIGHER BUILDING IN RELATION TO TOWN PLANNING

within the central area of London, we are likely to have to face a steadily increasing volume of private and public transportation on the streets. It will tax all our powers to provide adequate road space to deal with this traffic, without permitting any increase in the height of buildings, with the consequent further congestion of people and business in the centre.

The advocates of high buildings suggest that their policy would at any rate reduce the general traffic problem. I find no evidence to support this, and much that tends the other way. If the concentration of people in high business and residence buildings tended to reduce traffic, a comparison of the traffic conditions in New York with those in decentralised London should give some indication of this. On the contrary, the number of journeys per head of the population in New York exceeds 500 per annum, considerably more than in London, where last year they numbered 390.

It is true that Mr. Frank Pick, from whose recent Paper read at the London School of Economics I am quoting these and some of the following figures, estimated that the journeys per head this year will reach 414. This will indeed be a striking testimony to his genius for stimulating traffic by fascinating pictorial advertisements, aided a little perhaps by the abnormal shortage of houses, which obliges a larger proportion of the population than usual to live in the wrong place. But even that figure, if reached, is well below the New York number; and I have no doubt there are counter-parts to Mr. Pick at work boosting up the number in that enterprising city also.

The amount of cross traffic in London is enormous; it is estimated that 60 per cent. of the whole population engaged in business or labour in the area live in one place and work in another; while for all purposes something like three million people converge on the central areas daily.

Last year I spent some time consulting with the committee who are preparing a new plan for Greater New York on this and similar problems, and was impressed by the fact that the multiplication of dwellings and of business premises, in the centre, due to high buildings, so far from relieving the strain upon traffic, tends considerably to increase that strain. Moreover, there was no evidence that any economy in the space covered by the town or the distances which had to be travelled, was secured as a result of the concentration in high

buildings; and certainly no reduction was apparent in the time occupied in travelling about the town or to outlying suburbs. This came somewhat as a surprise. Like most casual visitors, I had not realised how small a proportion of New York is represented by Manhattan Island, nor had I previously experienced the very long railway journeys necessary to reach some of the New York suburbs. If circles having a radius of 5 and 10 miles respectively are drawn on the maps of London and New York the result is somewhat surprising. Undoubtedly a considerable proportion of the area which falls within the circles as applied to New York is occupied by water; but on the other hand a very large area of the town falls outside the outer circle; whereas the bulk of the built-up area of London is included within the inner circle; and most of the further suburbs, such as Ealing, Hendon, Woodford, Ilford, Woolwich, Bromley, with the larger part of Croydon, Merton and Richmond, fall well within the outer circle. Chicago also occupies a remarkably large area. The territory of the town itself extends for a length of 26 miles, with a width varying from 6 to 9 miles. Outside that area there are considerable suburbs, such as Evanston and Winnetka in the north, and the important industrial area known as Gary to the south-east. It is not easy altogether to explain the large areas covered. A much greater street width is provided in American cities, and this has a cumulative effect on the expansion of the town, as is apparent in Diagram 5. Moreover, owing to the fact that the area of a town varies not in proportion to the diameter but in proportion to the square of the diameter, a difference of density of dwellings, or of occupancy generally, has less effect on the distance travelled from the suburbs to the centre than would be expected (Diagram 8).

These considerations go some way to explain why the more general use of high buildings leads to little, if any, reduction in the size of American towns. A consideration of our own habits will suggest why they lead to an increase rather than a reduction in the demand on traffic facilities. About 13,455 people who work in London are brought in every day from Southend, 35 miles out. Let us examine the relative transport facilities which these people require, as compared with those which they would need if they were added to the population adjacent to the central area by increasing the height of the buildings there situated. Instead of 13,000

odd people taking one journey to and from their work in the day, and an occasional extra journey connected with their business, is it not clear that if they were living in the centre, they and their families would be on and off the various means of transport all through the day; that the extra tradesmen with their delivery vans; the postmen, milkmen, doctors, and all the other people attending to their daily wants, would enormously swell

town, the nearer people live to the centre, the greater is the demand which is made on the street and the various public transport conveniences, and the farther they live from the centre, the less is that demand. Anyone who will consider the ways of his own family and those who serve them, will confirm this.

The real transport difficulty in connection with the residents in Southend and similar places is of

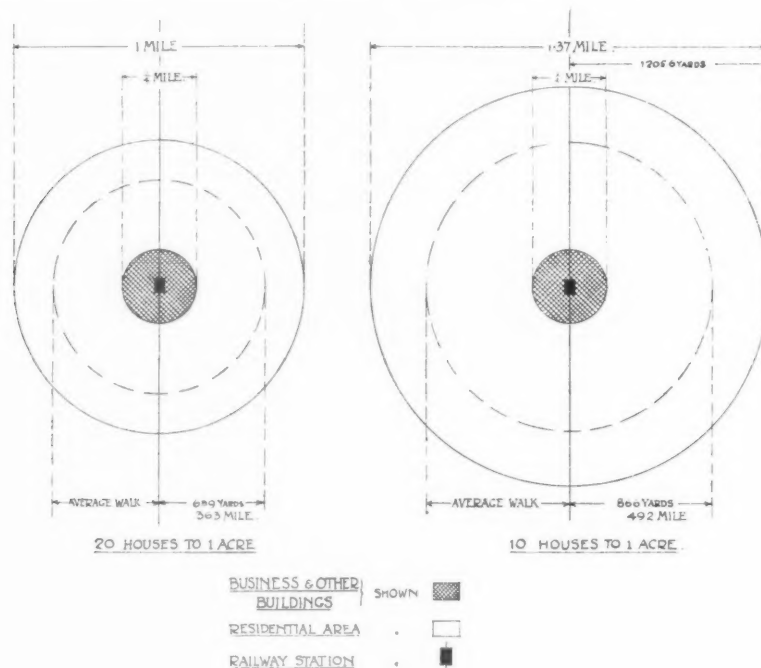


DIAGRAM 8

Showing the average length of walk to a railway station as affected by the density of dwellings

Density, i.e., No. of houses to the acre	Average size of Plot	Average walk to station
10	420 sq. yds.	866 yds.
20	185 sq. yds.	639 yds.
Density doubled; length of walk reduced 26 per cent.		

the volume of traffic in the central streets? Instead of 13,000 odd persons being carried twice or three times in a day, a population of four or five times that number would be utilising the streets and all the various means of public transport the whole day through. I venture to suggest that, contrary to the view of the advocates of high buildings, it is approximately true to say that in regard to a large

quite a different nature. It is not so much a question of congesting the traffic in the centre, as one of the cost of providing adequate transport facilities at the two busy times, when folk are going to or from their work, in cases where the demand for transport during the remaining hours of the day falls far below the peak load. This problem is by no means insoluble. The chief difficulty springs



## HIGHER BUILDING IN RELATION TO TOWN PLANNING

from the capital cost of the permanent way, which may have to be spread over a short daily use of the line. Apart from this, the running of a full train from start to finish of the journey is more economical than the condition of most suburban traffic, in which the load begins to diminish at the first stop, and most of the trains have one-third or two-thirds of their seats empty for a considerable part of the journey. The rolling stock can easily be diverted to the lines where midday traffic is most intense. The capital cost of the permanent way itself would be immensely reduced if the routes were reserved in the regional town plan. Moreover, the means of transport are now so varied that one suitable to most kinds of load could be provided if there were effective co-operation between the town planning and the transport authorities; while the efficiency of the transport itself could be increased and the strain on the roads greatly reduced if all the various means now available were co-ordinated under one general direction.

The haphazard growth of our towns has encouraged haphazard thinking about them. The owner of a building site is naturally obsessed by the importance of securing the most intensive utilisation of it. When he has fully occupied existing buildings he will want to crowd it with others, and when these in turn are occupied he will seek to pile more storeys on the top. The town planner, surveying the territory as a whole, may take a very different view: he sees that it is often less costly to acquire a second site than to overcrowd the first; he realises that midst the scarcity of many things there is no want of space, and that whatever the cause of congestion it is not due to lack of land.

Some truths seem too obvious to be readily credited; men are prone to try clever and complicated devices to attain the same end by a more devious route. Perhaps the nation is feeling specially poor, but, to produce more wealth or to waste less, seem too simple methods of enrichment to be popular. Oppressed as we are too with the miseries of overcrowding and housing shortage, how hesitatingly does the simple remedy of building plenty of good houses secure full recognition! Similarly, the towns being already unbearably congested, and the traffic in their streets in danger of being reduced to crawling pace by its excessive volume, the idea that congestion would best be relieved if we desisted from crowding or traffic most effectually be reduced by better distribution

of people and buildings, is much too simple to be readily accepted. Indeed, many seem bent on piling more building on the top of that we have, and boring more subways or erecting more elevated tracks to pour their additional multitudes into the already swollen torrent in the streets.

To the town planner this looks like sheer madness: but perhaps there is something unusual in his make-up which predisposes him, with childlike innocence, to put more faith than some of his neighbours in the simple and the obvious. Or perchance, if an architect, there is something in his training or his practice which encourages this tendency. At least it is a fact that the Art of Design which it should be the purpose of his training to develop and his life work to practise consists largely in finding simple solutions for seemingly complex problems. When the designer cannot see the forest for the trees he is a lost soul! He must depend on his trained imagination to keep the forest as a whole ever clearly in his view while his mind is occupied threading its way through the obstructing trees and their distracting shadows. If he misses the one simple and direct path to unity, which when found will appear to all to have been quite obvious, he will usually have produced not a design at all, but a mere compilation.

I have ventured to draw from American cities a warning as to some things which we should avoid, and to use their experience as a guide for our future steps. Lest I should be thought to undervalue the marvellous civilising achievement which those cities represent, or to be lacking in appreciation for the genius which their architects have shown in handling the novel and complex problems in design which have been presented to them, I propose to show you a few examples of their recent buildings to illustrate the difference between a design and a compilation. Some of their lofty buildings soaring up many hundred feet into the air are as beautiful as they are impressive. And the same sense of unity and simple rightness is as evident in many of the buildings which do not derive impressiveness from their height. The Lincoln Memorial is a temple as worthy of the commemorating nation as the statue it contains is appropriate to the man whose memory is there lovingly enshrined. It is one of the most moving buildings I have seen. The architect, in spite of the distractions of log cabins, freed slaves, and the hundred other accessories that crowd around that picturesque life

story, has gone straight for the main simple purpose ; a great nation remembers its greatest son.

Men who have achieved within a few decades such culture, such a high level of design as these buildings display, when they turn that capacity upon the problems of town planning, as they are beginning to do, will, I am convinced, achieve equal success.

Beautiful as are many of the towers of New York when considered singly, there is yet lacking to me the sense of grouping between them which would spring from their forming parts of a greater design. Fine as individuals, they bear yet little relation or proportion to each other. I am inclined to compare a cluster of them with the three related towers of that older Lincoln which we prize.

However that may be ; as architects we are trained to rely on orderly planning and proportional relation ; and we naturally believe that they can be applied to towns ; that the application of foresight and planning would result in the better distribution and relation to each other of industrial, commercial and residential areas, and could secure the more generous reservation of belts of open

space to protect and define the different parts of the town, the wards, the suburbs, the dormitories or the satellite towns ; that cities should extend not by fortuitous accretions around the circumference, but by the addition of definitely planned and defined suburbs or satellite towns, each made as self-contained as possible, depending on the main centre only for those functions which are by their nature centralised ; that the position of suitable rapid transit lines to connect these parts to the centre and to each other could be laid down and reserved, and that congestion of street traffic could be prevented not only by the provision of adequate roads, but mainly by the proper localisation of the life of each district, and the saving of a large part of the useless carting and rushing about which now springs from so many people, buildings, and parts of the town being in the wrong places. We are convinced that congestion will be cured not by increasing the density of the crowd, but by transforming the crowd into an orderly queue. This at least is the alternative we offer to the policy of expansion upwards, being convinced that nothing can be gained by crowding.



NEW YORK : PEDESTRIAN TRAFFIC SWARMING OUTWARDS FROM HIGH BUILDINGS

## HIGHER BUILDING IN RELATION TO TOWN PLANNING

### Discussion

THE PRESIDENT, MR. J. ALFRED GOTCH, IN THE CHAIR.

Mr. H. C. GOOCH (Chairman, London County Council): I esteem it an honour to be allowed to propose a vote of thanks to the lecturer to-night. And may I say at once, as one who has lived in London all his life, that I agree with every word that he has said. I am sure that any upholder of high buildings who failed to be convinced by his arguments would have been convinced by his pictures. We must remember that London is several hundreds of miles north of New York, and that all the difficulties in New York which Mr. Unwin has described would be aggravated to a much greater degree were it possible to translate the New York conditions to the London in which we live. One of the first things that would happen, I think, would be that our streets would never get dry. We know perfectly well that in the last few days, though there has been very little rain, many of our streets have been permanently wet; and if a large proportion of the population were condemned to live opposite damp streets, I do not think anybody who is responsible for the health of the people would view the possibility with enthusiasm. It is very difficult at the present moment to steer traffic on these greasy streets, and if we had New York conditions, the confined streets, the absence of sun, and the absence of fresh air, it would be almost impossible to steer the London traffic, unless it was on fixed lines. Whatever may be said as to the value of high buildings for business purposes—and I think there is very little to be said—there is nothing whatever to be said for them as habitations for the people. Those of us who are connected with the education service in London know that even now the present height of buildings is a serious difficulty in providing proper exercise and air and light for the young population. If the children were condemned to live in buildings in which they could only get up and down by express lifts, they would not have the opportunity for healthy exercise on the ground which they need, and which we believe is absolutely necessary.

There is one other thing that I would like to say, which is, perhaps, only a city amenity. If people lived in these high buildings and could see nothing but other high buildings, and could not see anything green—a tree or a patch of grass—it would be a very great lack in their lives. Houses of moderate height, from which the residents can all see something green, even if it is only a small area of grass, add materially to the spiritual welfare of the people. And I submit to those desiring to plan a large town in order to house its population, that the motto should be, not as the sky-scraper supporter would have it, “Upward,” but “Outward.”

Mr. E. R. FORBER, C.B.E. (Ministry of Health), in seconding the vote of thanks, said: I am especially

delighted, as an official colleague of Mr. Unwin's, and as one who has been very closely associated with him during the last four years, to see the splendid reception which this meeting of his brother-architects has given him. Personally, I am satisfied that much of the work and teaching of Mr. Raymond Unwin will endure long after the Ministry of Health has been decently interred.

I do not propose to follow Mr. Unwin into those very fascinating figures which he has laid before us to-night. Perhaps he will forgive me if I commend his statistical methods to those magazine statisticians who used to excite us with wonderful diagrams and figures. It is quite possible that Mr. Unwin's figures, or his interpretation of them, might be challenged. I have myself had to make a lot of statistics, and my experience is that they have got to be pretty poor figures nowadays if you cannot make them support two conflicting conclusions. To my mind, Mr. Unwin has made it perfectly clear that high buildings are a very serious cause of the great traffic difficulty. He has given the advocates of that form of construction a good deal to answer and a good deal to think about. I was rather comforted when Mr. Unwin set out to make our flesh creep that he had to go for his illustrations to America. If there were time, I think it might be worth while to go more deeply into that. We have been making towns, and extending towns, for hundreds of years. We have not had the advantage of limitless land, or “checker-board”—I think that was the term he used—“checker-board developments,” or easily provided broad avenues, and yet, somehow, we have avoided these ghastly messes into which our American friends seem to have got. I do not know why that is, whether it is because we are “dead slow,” or that we have got no imagination, or whether it is just our simple sanity. I feel sure it is not just mere accident.

It is an important function, I think, for this learned Institute and apostles like Mr. Raymond Unwin to examine problems of this kind and to suggest means by which such dangers can be avoided; and for central government and local governing bodies to make wise use of the advice you are able to give them. You have heard, from the Chairman of the London County Council, how he has been confirmed in his faith. I think we may confidently expect that we shall be spared, in London at all events, the worst evils which are to be seen in New York and other cities in America.

Professor S. D. ADSHEAD [F.]: I came here to-night with anticipations of hearing some new arguments in favour of high buildings. This question has now come to be an almost perennial one, but I feel, from the tone of the meeting, that its solution is very

near at hand. I, of course, agree with everything that my friend Mr. Unwin has said; one only feels that his ability in piling up arguments in favour of his case is somewhat unnecessarily overwrought; the case is self-evident.

There is one point, however, in Mr. Unwin's statement which some may have misinterpreted. I think Mr. Unwin said that were Central London occupied by householders, we should have increased congestion. I know he does not mean what his words convey to me, but it would be well if he were to clear the point up, so that there may be no mistake about it. If you take a map of London showing the movements of its population, you find that the old residential area has rapidly decreased in the centre; but that does not mean that the congestion has decreased also. Areas of what were once residential houses, such as one finds in Russell Square, are now occupied by buildings like the Russell Hotel. The old inhabitants used to live quietly at home, but now that these areas are occupied by a different type of building, very much higher buildings—not so high as our American friends might have erected, but very much higher than their predecessors—and now that they are filled with a class who move about in hordes, and with tremendous rapidity from place to place, there has undoubtedly been increased congestion in the streets. Thus the decreasing population in the centre of London is no sign of a decrease in congestion, but rather, otherwise, it is a sign of a very rapid increase in the congestion. The whole question is, I think, summed up by Mr. Gooch, the Chairman of the London County Council, when he says that the problem of dealing with an increasing population depends for its solution on a well thought out scheme of distribution.

Mr. E. P. WARREN [F.]: I should like to add my quota of high appreciation to the remarks which have been made in praise of Mr. Unwin's Paper to-night. I have never heard, I think, at any meeting of the Institute, or indeed anywhere else, a case stated so temperately and lucidly, with such deliberate consideration and so much restraint. Mr. Unwin has been extremely convincing in his arguments, because, among other reasons, he has put the case against high buildings in such a fair and gentle presentation. I think most of us, if we were wavering on the subject—which I was not—must have been thoroughly convinced by Mr. Unwin that it would be an appalling disaster if London, by legislative processes or otherwise, were to admit buildings of even half the height of those in New York and Chicago. I agree with the gentleman who followed Mr. Unwin that London is relatively sunless, and if we were to deprive ourselves of any atom of that sunshine which is rare and but sparingly bestowed upon us—by nature, circumstances and smoke—our state would truly be deplorable. If a building is allowed to

rear itself to more than the average scale, the result upon its neighbours is disastrous. Now, where I live, I have to be in shadow several hours a day, whereas formerly for certain hours of the day during certain months of the year I had sunshine. Now I have to wait until the sun has almost set before I can get any at all. That is an effect of the recent erection of a relatively high building, a mere cottage on the New York scale, and if we were to have anything like even the lowest of the American high buildings in London, with our narrow streets and congestion, the result would be a decrease of health and cheerfulness, and I think an inevitable increase of all kinds of depression, and probably disease. Our scale does not permit of buildings of that kind. I shall not say that there may not be areas in London or its outskirts where higher buildings are admissible. But, as Mr. Unwin has so ably pointed out, there is the further and definitely injurious effect of high buildings in the congestion of traffic caused by their concentration in relatively small areas of a considerable increase in population. You cannot go through Oxford Street and Regent Street to-day without observing the processions of enormous buses, and having the greatest difficulty in getting from one point to another. That is a foretaste of what would happen in London if instead of inducing, as it is our duty to do, people to go farther out of London, we induce them to crowd even more into it. We have made and accepted our scale, as a result of our climate and conditions, and, without either colossal expense in street widening, or extreme practical and æsthetic disadvantage, we cannot materially alter it.

Professor BERESFORD PITE [F.]: We should remind ourselves of the continuous debt we are, and have been, under to Mr. Raymond Unwin ever since the inauguration of the Housing and Town-planning Conference in 1909, which came to fruition, through his assiduous labours, in 1910. From that period onward we have continually received great assistance from Mr. Unwin's industry, lucidity, and—if I may say so—his admirable good nature. He undertakes no problem otherwise than in a friendly and judicious way, and his presentation of the subject to-night has been entirely characteristic. We heartily congratulated him and the Local Government Board of old, when it opened its eyes and its arms to Mr. Unwin. We know that his work for the nation at large has been of extraordinary value.

The point of view of this paper is rather new. The effect on light and air in a city was disposed of, so far as we are concerned, some time ago; and it is flogging a dead horse to insist on the generally deleterious effects of high buildings to the health of the city worker. Mr. Unwin to-night has been demonstrating the effect of high buildings on the transport problem. His contentions will come home to all who suffer from the crowded condition of the streets. This difficulty has extended



## HIGHER BUILDING IN RELATION TO TOWN PLANNING

far outside the City area, into the West End as far as the Marble Arch. At this time of the year the greatest causes of this nuisance are the shops. I do not think we shall be inclined to show mercy to their owners when they urge us to make these business premises higher. If we could persuade them not to delay foot passengers by their attractive wares, some of our discomfort might be got rid of.

A very important and interesting aspect of the subject could be dealt with upon the views which Mr. Unwin showed of the buildings: I mean the æsthetic side of the question. I am inclined to suggest that the design manifested in a tower building is wasted if there is another high building, of equally interesting design, placed close to it. One of the New York buildings is enough to give dignity to a whole city; if in London we had one building alone of that sort, we should be quite satisfied, but dissatisfied with a dozen, or a hundred. We have to realise what the effect would be if instead of having one Victoria Tower, which is a beautiful addition to the landscape of London, we had a hundred such crowded into a small area. We should be then in very much the same condition as they are on Manhattan Island. These buildings destroy the effect of one another when they are placed in contiguity, smiting the eye at once without any consideration of breadth or grouping effect, as Mr. Unwin pointed out.

On the general question, this Institute could not possibly deal with any abstract doctrine of the advisability of high or low buildings. To preach a crusade, or a campaign, for higher buildings is as ridiculous as to preach a campaign for a brighter London promoted by twinkling lights on the streets at night. There is a false note about it of unreality, and I hope that, as far as the Institute is concerned, we have heard the last of it. But it is certainly open to us, and I think it falls to us in an especial degree as an Institute, to consider the social aspects of these problems. Inasmuch as any one of us might one day be commissioned to design a highly remunerative building, it is befitting that we should, as an Institute, maintain our public character by protesting against any agitation or movement that can certainly be described as anti-social, inimical to the interests of the voiceless workers who never hope to commission an architect to defend their interests. And from that point of view, without any doubt, we hold a brief for the worker, and we will justify ourselves by remembering that the predominant element in art is reasonable pleasure; and reasonable pleasure will be diminished in London, or in any other city, by admitting the right of selfish interests to erect high buildings to the detriment of the public.

I heartily wish to thank Mr. Unwin for his paper to-night, and to express in some measure our esteem for him and for his work.

Sir MARTIN CONWAY, M.P.: I hesitate to intervene in this discussion, because to say anything worth while would take me much too long, and there is not enough time. I think this is a most scientific, carefully thought out, most valuable paper; I do not wish it to be thought for one instant that I depreciate the paper, for I have listened to it with enthralled interest. But I have noticed a certain atmosphere in the room. I ask how many people in this room have ever lived in high buildings; might I ask those who have lived in high buildings to hold up their hands? You see there are only very few. I have, and I must say that never in my life have I experienced, either when living in the country or on the top of high mountains or anywhere else, a more comfortable, charming or delightful place than in about the fifteenth or the twentieth storey of a really high building. The Chairman of the London County Council spoke in a depreciating sense of the view from a high building. The view from the high buildings in New York is incomparably the most beautiful view in the world. If you look out of those windows you do not see "a bit of grass": from these high buildings you see "All the kingdoms of the world and the glory of them"; you look out on the ocean from New York Harbour and away across to New Jersey. The most glorious view I know of in any town is to be had from the high buildings of New York; that is beyond dispute or discussion.

The other day I had occasion to consider how very beautiful the view of Jerusalem was from the Mount of Olives, and I was wondering what were the great cities I had seen which were outstandingly magnificent and beautiful; and there is no question that New York, seen from New Jersey, surpasses any town view I know in the world for beauty, under suitable light and atmospheric conditions. It is a most splendid sight, and arriving there by steamer you encounter a sight never to be forgotten. Beauty New York undoubtedly has, and of the highest order.

With regard to the cars, there are one or two caveats I would like to utter. Firstly, two out of every three American cars are out of action most of the time, and Mr. Unwin has not taken any note of that. And then I join issue with him in his statement that the higher up you get, the less the floor space. On the contrary, the higher you go, the more floor space you have; there are more lifts to the bottom ten storeys than to the next ten, and there are still fewer lifts occupied in taking you to the top.

Another thing I would say is, that the congestion in New York is not the result of the high buildings, but the high buildings are the result of the congestion. When you have a nation of upwards of a hundred millions of inhabitants, enormously active in manufacture, in commerce and industry, and with the re-



sources which the land of the United States possesses, being exploited with the energy of such a people, you must produce a city where ultimately the amount of business which comes into it will be enormous. And that has got to be done in a small area, and it is that which makes the congestion, and which produces the need for high buildings. They had to have them, it was not choice. The buildings were not put there because they wanted to have them; they had to have them, and they go on building them because they have to have them. One hears allusions as if it were proposed to put up high buildings in London so close to each other as to shut out the light. Nobody, except a madman, proposes anything of the sort. If you are to have higher buildings you must have wide spaces between them, and no one has suggested anything else. Instead of producing darkness, you produce light after you get to the fourth or the fifth storey; every single storey higher up has much more light than have the corresponding storeys below. If you were to have a 30-storey building on the site of the Bank of England, the bottom storeys might be dark, but the others would be lighter than anything you have in London. But if you put them alongside each other, like corn in a field, there will, of course, be no light. But no one has proposed to do such a thing.

My belief in high buildings is this. If you take the East End of London miserable houses with three storeys, each with its backyard, and you concentrated the population of an acre of such into a tall building, you might have more than three-quarters of an acre of open space, and then would not you be better off? Of course you would! You would not have more congestion; there would not be any more persons there, you would have accommodated them in a rational manner. Congestion will come, anyhow. The congestion in London recently is due to increased business; there are more people coming to London to do their shopping and to do their jobs. And those who come to do their jobs in London have to squeeze themselves into miserable holes of offices which are not fit for a rat, in dark cellars and all kinds of places in the City. But go to New York and see the offices there where people live and work. And, forsooth! we are told these rat-holes are healthy compared to the tall buildings which are supposed to produce degeneracy and so on. There is no comparison whatever from the point of view of health.

One of the reasons New York has to have these things is that the land is long and narrow, it is an island; whereas London lies on the land like a poached egg. In New York traffic runs up and down; in London it concentrates on a centre. I noticed from Mr. Unwin's diagrams that it was assumed that all the people were going to walk in one direction; there were plenty of side streets, but they did not seem to be wanted. If everybody is going out of the house at the same time, and

they are all going away in one direction, there will, of course, be congestion; it would be so in London. But in ordinary human life things do not happen in that way; there is greater variety. We do not all start at one time from a given house and make for the same railway station. The reason I want tall buildings for London is that I do not want London to come down my way into the country. I live in Kent, where we have a good human countryside, with oxen and farms, and I do not want garden suburbs which spread and spread. If you let them spread enough we shall have no country left at all.

Well, that puts a few of my prejudices into shape. I hope I have given utterance to them without in any way depreciating or criticising, or even objecting to, the very valuable and interesting Paper which we have listened to with so much interest and attention.

Mr. DELISSA JOSEPH [F.]: So much has already been said in commendation of Mr. Unwin's paper that I will limit myself, for the moment, to expressing my appreciation of its outstanding quality of ingenuity. But I am entitled to ask, while giving full credit for the writer's ingenuity, what does that ingenuity prove? It proves, beyond question, that in many of the American cities there is a marked congestion of traffic, and that that congestion of traffic has probably been—I will not say caused by, but materially added to by the fact that some buildings have been erected in those cities to a height of some 700 feet. In other words, a normal traffic has become abnormal by the abnormal character of some of the buildings in those cities. Mr. Unwin offers us no remedy for the condition of affairs in New York or in Chicago; but he offers us, as I understand, a warning of what will happen to us unless we have regard to that which has happened in other great cities. My complaint, if I may be allowed to express it, against Mr. Unwin is this: that he has taken very much of the sting from his arguments by, throughout his paper, referring to higher buildings, and not to sky-scrapers. Now, in order to understand the subject and to appreciate it, it is absolutely essential to emphasise that there is no point of contact between sky-scrapers—which run to 500, 600 and 700 feet in height—and the higher buildings which have been advocated for London, and which in no case is it contemplated should exceed 120 to 150 feet. Therefore, if you read into Mr. Unwin's paper the real definition of the buildings whose effects he has been describing, you will get a juster view of the real issue of his Paper. That real issue is that, in view of the difficulty of traffic which has been created by the erection of American sky-scrapers to a height of 700 feet, we should be warned of what will happen if we agree to higher buildings, which will be only 150 feet high. If you will rearrange his arguments with those

## HIGHER BUILDING IN RELATION TO TOWN PLANNING

definitions before you, you will get his case in better perspective. Then you will ask yourselves, What is the effect of his warning? I say the warning falls to the ground, because the circumstances upon which it is founded have never occurred in this country, and never will occur in this country. No one has suggested sky-scrapers here. I am not sure that Sir Martin Conway, some time ago, did not use the word, but he quickly modified it when he found how easily it could be misunderstood. No one has argued for sky-scrapers; the conditions here do not require them. And that brings me to present to you this query: Why have higher buildings been advocated? That requires justifying, in the light of the criticisms we have heard. I am almost tired of repeating these formulas, because they are so obvious to those who think. London is the centre of the commerce, the shipping, the finance of this country—of this Empire, one might say. London has proved itself inadequate for the growth of these great businesses, and therefore it falls to the citizens to consider how best they can reasonably accommodate the growth of the business of this great city. I may say, incidentally, there is no point of contact between the question of higher buildings and the transfer to the outskirts of businesses which have been established for centuries; your business premises must adjoin the great markets of the world in the City. Your stock-broker must be near the Stock Exchange—this is all obvious—the bill-brokers must be near the Bank, the shipping must be near the Baltic Exchange; it is practically impossible to move any of these great activities into the outskirts. Nor can Stores, such as those in the West End, be properly transferred to other districts. For the cases I have mentioned, it is essential you should provide accommodation in the vicinity of the respective Exchanges. And if that accommodation can be obtained by raising the height of the buildings—because, after all, the height of buildings is an artificial figure, arrived at as lately as 1894; before that, there was no restriction as to the height of buildings in this country—if that can be done it should be permitted. For good reasons, at that time, it was said that a building should not exceed 80 feet with two storeys in the roof, except with the prior consent of the Council. That was because, at that time, London was threatened with some high buildings, and London was not prepared to attack them adequately in case of fire. But in the ensuing 30 years matters have changed, methods of construction and methods of fighting fire have been altered, therefore the need for that restriction no longer exists. I submit this: that if we are to apply Mr. Unwin's reasoning literally, if we are to curtail the development of the shipping, the banking, the insurance, and the general mercantile development of the City of London, if we are to be prevented, because of troublesome traffic problems developing into still

greater ones, from extending these businesses—and if we are to allow the development of those great businesses to be hampered, it will be a great misfortune. I submit that traffic problems are matters for the traffic experts; let them devote their minds to those problems, which so far they have failed to abate one jot. Are the needs of this great heart of the Empire to be allowed to suffer by the curtailment of the opportunities of development, and shall adequate accommodation be checked because there may be still more congestion of traffic? I say that if Mr. Unwin's forebodings are regarded by serious men—which I suggest they will not be—we shall have to bring the affairs of this great city to a standstill. He practically says: "Do not develop, because if you develop you will increase the population, and if you increase the population you will increase the traffic, and if you increase the traffic it will take you longer to get home than it does now!" Therefore I submit, with the greatest respect to Mr. Unwin and to his ingenuity and his extremely moderate way of presenting the subject—and I am sure he has presented it with complete conviction from his own point of view—I submit that the logical outcome of his theories would be not merely to prevent the erection of higher buildings, but also to require the removal of omnibuses from the streets because they are obstructive. You might as well argue that the great lorries which go carrying goods from the Port of London and the warehouses to the stores and show-rooms in London must not be allowed in the streets, because they not only help to obstruct the streets when they are travelling, but they block them when they are standing outside the premises to which they deliver goods, goods on which depend the trade and commerce of the country. I hope I have shown you, by the method of *reductio ad absurdum*, the impracticability of the arguments Mr. Unwin has put forward.

If you do not build higher, what will you do? Even Mr. Unwin will admit that something must be done to meet the increased demand for accommodation. If you do not build upwards, you must dig downwards, and that is what is being done to-day: basements, sub-basements, and sub-sub-basements are being formed, because of the grotesque limits which are put upon the heights to which buildings may go; and in these deep basements men are living and working, using the electric light all day, and having forced ventilation; and under the present Public Health legislation there is no provision which can touch this method. I ask you to judge between the alternatives: whether you would continue to build downwards and suffocate your workers, or build upwards and give them light and air.

And we must ask ourselves this: What is the main motive behind what you may call the act of building? Men build for profit, and not for considerations either of amenity or aesthetics. When a man contemplates,

## JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

or desires, to increase the height of his building, his purpose is simple: he wants to increase the quantity of his business, so that it may justify the additional expenditure on his building. That is one class of those who build. The other class are investors, who desire to put their capital into buildings and draw from that source the largest possible legitimate profit. Mr. Unwin says a man's desire to put the largest amount upon his land is an obsession. Then, if that is so, we are all suffering from the obsession to obtain a reasonable return upon the capital we invest. If you bear that in mind, that the prime object of the claim for higher buildings is adequately to accommodate, in suitable centres, the growing business of this country, and that those who engage in building do so to obtain a reasonable return from their outlay, you bring yourself down to earth, and instead of indulging in theories, you will consider these practical issues, which are not unworthy of consideration by a body of men like those in the Royal Institute of British Architects, who would not exist but for the needs which call for the play of their skill.

My concluding words are these: In 1920 I read a Paper before the Institute on "Higher Buildings for London," and I think to that extent I was a pioneer of this topic. The then chairman of the Fire Brigade Committee of the London County Council took part in the debate, and he pointed out the impossibility of increasing buildings from 80 feet to 120 or 150 feet—we only asked for 120 feet in wide streets, and 150 feet facing open spaces like parks and the riverside. He said they could not allow buildings of more than 80 feet because water could not be pumped higher than 80 feet. He omitted to mention that, where a high building exists in such a vital position in the City as St. Paul's Cathedral, there have been introduced electric pumps which from the 80-foot height can throw water over the top of the dome, 300 feet from the pavement. The then President, Mr. John Simpson, then made this memorable remark: "It is grotesque that architecture and its development should be restricted by the height to which the Fire Brigade can squirt a stream of water." The question of pumping water to the necessary height has been disposed of long ago.

In 1923 I read another Paper on "Building Heights and Ancient Lights." Mr. Unwin sent a memorandum in connection with that Paper, which was read to the meeting in his absence; and that memorandum pointed out that a congestion of motor cars would necessarily follow the erection of higher buildings: he went over the same ground as he has to-night. I then observed that Mr. Unwin was considering the question of higher buildings in terms of motor cars only. That was received by many as a very fair summary of the contentions he then put forward; and I do not think I

can do better than leave the subject now with the same remark.

But Mr. Unwin has given us peculiar pleasure, not merely by reason of the ingenuity of his Paper, and not only by the temperate manner in which he has presented his subject, but by the object-lesson he has given us of the real beauty of the American sky-scraper. I can truly say that my heart leaped with joy, as it always does when I see great things, when I saw on the screen those noble structures.

Mr. ANDREW T. TAYLOR, J.P., F.S.A., L.C.C.: In this old battle-ground we have had many pitched battles under the auspices of the Institute, and I came rather spoiling for a fight to-night. I was afraid at first that the unanimity of the speakers was so definite that I should not have it. But on looking round I saw my old antagonist Mr. Joseph, and also Sir Martin Conway, and I took heart again.

I can quite understand Sir Martin Conway's love for sky-scrappers; he is a celebrated mountaineer, he is at home in them, and so I am not surprised at the joy he has in living twenty-five storeys up. I can also understand the pleasure he experienced in sailing into New York Harbour and seeing those immense buildings, but I rather wondered when he said he thought New York was the most beautiful city in the world. I have often sailed into New York Harbour, but I confess I have not the same pleasure in it that he has; it has never struck me in that way. I have thought what an extraordinary jumble of buildings they were, without any grouping or arrangement. But the point is not what is good for New York—the practical point is, what is good for London? I admire Mr. Joseph's persistency and consistency in all his utterances. Whenever the London County Council allows a building to go up a foot or two higher than 80 feet, immediately Mr. Joseph writes a letter to *The Times*, and claims a victory for his cause, and adds another scalp to his saddle-bow. It makes one rather careful as to what one does; because he ignores the fact that in all these cases there is a special reason why the building should be a little higher. Therefore I would respectfully suggest to Mr. Joseph that if he desires to get higher buildings he should not write to *The Times*. There is an object-lesson in the reconstruction of Regent Street. Some of us lament the loss of the charm of those low buildings: you got sunshine and breadth of street, ladies could shop in the sunshine, in the light and brightness. But now you have several buildings 80 feet high, and it is obvious to everyone that there is a distinct loss of light, sunshine and beauty. Only a few of those buildings have been put up yet, but when you have the whole of Regent Street, on both sides, with 80-feet-high buildings, and when you have the Quadrant on both sides 80 feet high, I am afraid Regent Street will be a

## HIGHER BUILDING IN RELATION TO TOWN PLANNING

great disappointment. Imagine it with buildings 150 feet high, as I gather Mr. Joseph would like to see it, or even 120 feet high; contemplate it. Then, further, imagine buildings 120 feet high in streets in the City which are only 28 feet wide; they would be dark, they would be impossible.

At this late hour I cannot go into all the arguments, but you are familiar with them, so let me merely mention one or two.

First of all, there is the traffic question. It is no use Mr. Joseph pooh-poohing that, and saying it is a matter for experts. Just now we are at our wits' end how to grapple with it. London is in a chaotic state. We have no Board which is responsible, and every day it is increasing in its confusion. To add buildings twice as high in the City would aggravate that to an enormous extent. You have to get people in, in the morning, and to get them out again at night, and those who know anything about trams and buses and trains will appreciate the difficulty in connection with that.

Then there is the question of fire-protection. Mr. Joseph says there is no difficulty about attacking fire in high buildings, but I am afraid he knows nothing about the Fire Brigade. Our Fire Officers tell us that an 80-foot warehouse is as high as they can deal with adequately in case of fire. All the theoretical knowledge in the world is of no use against practical knowledge.

Then there is the question of health and sunshine. Doctors will tell you that the loss of life, especially child life, is enormous in London owing to the lack of sunshine in the streets, and anything which will make that worse will be a very serious thing for the health of the people.

Mr. Joseph asks, What is the remedy? My remedy is, decentralise the population in the City of London. There is no need for people to crowd into that one little square mile. There are certain businesses which it is necessary should be there, such as the Stock Exchange, Lloyd's, and so on, but it is not necessary for hundreds of other businesses to be in the City at all. The fact is that they are actually going further out every day. All round Bloomsbury insurance and other offices can be seen; and along the whole of Kingsway there are commercial businesses, also along Euston Road and Marylebone Road; large public buildings are going up there on every hand. And to-day there are miles of streets on the outskirts of the City which are not more than three or four storeys high, and every one of them could go up to 80 feet. Do that first of all; double the height if you like, thus spreading the area of the population, and then you will get double the accommodation without sky-scrapers and without any alteration of the Building Laws. Try that first, and when that is accomplished, then, but not till then, let us consider higher buildings.

Mr. H. M. FLETCHER [F.]: Even now, Mr. President, may I add a few words? Mr. Joseph has spoken about the importance of keeping business in the centre of London; what is business, compared with the health and amenities of the inhabitants of London? Sir Martin Conway spoke of the effect at the Bank of added storeys; but what would be the effect on Lothbury, and Capel Court, the Mansion House and the Exchange? He leaves that out of consideration.

I was amazed at the moderation of many of Mr. Unwin's diagrams. He did not point out that in each case where he showed the volume of traffic from one of these high buildings there was an equal volume of traffic coming from the buildings all round. The amount of traffic he showed was not to be compared with the total traffic. If you have been in New York you will know what the traffic is. The photographs he showed of the congestion of cars, tramcars, etc., give no conception of what it is from five to six in the afternoon; tramcars are surrounded by clusters of people hanging on like bees to a hive, or like bunches of grapes. Would Mr. Joseph like to be a bee, or a grape, under those conditions?

The trouble is equal in other cities, like Philadelphia. I am intimately acquainted with a family who live thirteen miles from Philadelphia, and who occasionally go there for an afternoon's shopping by car; and whenever that happens the whole of the thirteen-mile journey is occupied in planning where they can possibly park the car during the visit to four or five shops. They are not allowed to stand the car in front of a shop for one instant longer than necessary to get in and out of it. The probability is that it has to be left in a place a quarter of a mile away, and then the people have to walk back from the shop to the car, and then plan again where it shall be put. The inconveniences are incredible to us. And, whatever those in favour of high buildings may say, this condition of things is entirely one of high buildings, and, as Mr. Unwin pointed out, it is not due to the whole place being built up to thirty storeys, but to what amounts to seven storeys over the whole area.

The æsthetic point of view is one we need not go into. From certain points of view, the New York sky-scrapers are extraordinarily imposing, especially as you get them end on as you come up the harbour, and they are grouped together. The photographs Mr. Unwin showed gave the least favourable view, that is, from the side, from which view they look like a mouthful of jagged teeth.

Mr. Unwin has knocked the last nail into the coffin of the high building fallacy, and I should like to see the Institute take its courage in both hands and distribute Mr. Unwin's paper gratis to every Town Council, to every town which has a town-planning scheme, and especially to those which have not.



## JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Col. C. H. BRESSEY (Ministry of Transport) : I expect the problem of transport is exercising your minds anxiously at present in relation to getting home to-night ; therefore the shorter my remarks the better.

I live on the opposite side of the road to Mr. Unwin ; I look up from the lowly building allotted to Transport to the lofty palace of the Ministry of Health, with whom we have the pleasure of working in many capacities. One point comes to my mind on hearing this admirable paper, and that is, that the whole problem of town development is becoming a question of traffic control. We have Town-planning Authorities, Housing Authorities, Building Act Authorities, Authorities looking after recreation grounds, schools, and so forth, but no London Traffic Authority is in existence. We are told there are experts who are controlling the matter, but I do not know what power they possess. The London Traffic Authority is non-existent, though a Bill has been drafted for its establishment ; and I hope that, whatever change may take place in the Government of the country, some Bill to that effect will be placed on the Statute Book soon, as nothing could be more important or more urgent.

I fully agree with what has been said as to the need for decentralisation. Colonisation has always been one of the characteristics of the British race ; it is needed for London. The whole of the control of London, for every purpose, was concentrated in the Guildhall for many centuries. Then it moved to Spring Gardens for many purposes. Now that Spring Gardens has been outgrown, what has the London County Council done ? It has not attempted to erect a twenty-storey building in Spring Gardens, but has colonised the other side of the river. There is much to be learned from that move. The south side of the river contains an enormous tract of country which might be developed very usefully for commercial, industrial and administrative purposes if additional bridges were constructed. A great remedy can be effected in that manner. The difficulties of transport at present can hardly be exaggerated, and Mr. Unwin's pictures, showing the amount of space occupied by the traffic attracted by city buildings and the trade carried on there, proves how necessary it is that every form of traffic which can avoid the central area should be switched off elsewhere. There is no doubt the most useful office to be performed by a London Authority would be a discrimination of the various forms of traffic, so that vehicles which have no need to enter the heart of the town shall be diverted round the town by such roads as are now under construction—*e.g.* the North Circular Road, which I hope will be completed in about 18 months ; the Eastern and Western Avenues, too, need connecting, so as to reduce the pressure on the central area. It is tasks of that sort which must be faced by a London Traffic

Authority. And, whatever the constitution of that body may be, I sincerely urge—and I think Mr. Unwin will agree with me—that nothing could be more pressing than the setting up of some such authority to grapple with problems the intensity of which has been so clearly described by Mr. Unwin.

The President put the vote to the meeting, and it was carried by acclamation.

Mr. RAYMOND UNWIN [*F.*] (in reply) : I have to thank you all, most sincerely, for the very kind and flattering way in which you have expressed your thanks to me.

I will not, at this late hour, go over most of the arguments that have been used ; many of them have been favourable to my contention. There are, however, one or two things I would like to say.

There is, first of all, the main difference between Mr. Joseph's position and ours ; it is simply that Mr. Joseph, as I think, looks at the question from the point of view of the owner of the individual plot, and what he can do to make the most of it : while we look at it from the point of view of someone concerned with the town as a whole : we take the view that the whole is greater than the part. We are somewhat astonished at the suggestion that the owner of the individual plot who happens to have the God-given space of the River Thames against him should be entitled to carry his building up an extra height so that he may monopolise the advantage of that space, and prevent the open and sunlit area from benefiting the people behind. We are still more astonished that anybody who should happen to front an open space which may have been bought at a great price by or for the public should, on that account, claim an extra licence to go up and obliterate the benefit of that open space, so that it is no longer of use to the adjoining public. It must be that we look at things differently. It is a similar difference that I have with Sir Martin Conway. He is impressed with the advantage of living at the top, or near the top, of one of those beautiful buildings which I have shown you in New York. I also have had the good fortune to spend a few days in a very handsome flat well up in one of those buildings ; but I cannot overlook the fact that the higher those buildings are, the greater are the number of people that live down below me, and whose light and air I am taking away from them so that I may enjoy that magnificent outlook which appeals to him so much.

With regard to the beauty of New York as a whole, it does not appeal to me. And while I think there is immense beauty and impressiveness in the individual buildings, there are very few points of view in which they do not conflict with one another ; and they simply avoid making anything of a picture or group. It is true that in certain states of the atmosphere—that is, when you cannot see them very well—they are dis-



## HIGHER BUILDING IN RELATION TO TOWN PLANNING

tinctly impressive as a group. But, apart from that, my admiration is for the individual building: the mass of them seems to me formless.

Regarding the main point Mr. Joseph made, that I was dealing with sky-scrapers and not high buildings, I must dissent from that. I said that if any single storey was added to any building in the City of London, we should rue it in our traffic. And Mr. Joseph, for the heights he advocates, has only to stop at the first stage of my diagrams, and I am satisfied with the arguments from the result which is shown there. The fact is that our streets are much less in area and width than those in the cities I have been dealing with, and we cannot afford to increase the traffic by going up. I deny that this will oppose any obstacle to business. I admit it may possibly happen that Messrs. Horner and Plums will not get quite so many people flocking into their shop; but is it such a vital matter to the City of London that ten thousand people should go there, instead of five thousand there and five thousand to some other equally good store, that the traffic of the City of London is to be upset for that privilege? There is no reason or advantage in it; I have yet to see arguments put forward which show any sufficient public interest that is being served by the growing congestion that is characteristic of the great cities of this and other countries. I believe this expansion upwards is entirely in a false direction; that it leads us nowhere; that more and more congestion results, which is detrimental to the lives of the people who live in the city, is depreciating their standard of health, and is making impossible the good life that a people have a right to expect to live in the cities. That congestion, which, I believe, is an inevitable consequence, constitutes the case against high buildings. Let us hesitate to allow in London even a small addition to the height of buildings, because if any appreciable part of London were built up to an extent approaching the limit which is at present allowed, we should have all our capacity taxed to handle the traffic in the streets. There is one comfort: that these people who go up often defeat their own purposes! On three occasions the main shopping centre in New York has had to move to a new situation largely because the traffic congestion was so great that comfort in shopping had ceased to exist. I anticipate that before many years have elapsed the Loop in Chicago will cease to be a first-class shopping one, because people of sense will go and shop in a more comfortable quarter. I would warn shopkeepers of Regent Street and other similar places that they run a considerable risk in shutting out the sunlight and destroying the beauty of a street which has, unconsciously perhaps, proved attractive to the shopper. I shall not be surprised if, before very many years are out, we see a movement away from those streets which are being hemmed in by high buildings in such a way

that the pleasure of going to shop there will become less than it was, partly because of the loss of sunlight, and partly by reason of the increased congestion of traffic. People who say this congestion is good for business are antiquated in their ideas. Do they realise that we have telephones and all kinds of new apparatus for diminishing distance, and that in a few years the assistant secretary of the Minister of Pensions will be able to sit in his new building at Acton, and will not only be able to talk with his chief in Whitehall, but will have a picture of his chief before him while he talks, and will be able to see the changes on his countenance, and carry on the conversation with all the advantages he would have if he were sitting in the same room? This idea that you must pile all the business upon one spot is an antiquated idea, and one which ignores modern conditions. How shall we deal with aeroplanes and such things in the future if we do not leave some open space for them and other new inventions which may come along? Congestion is all on the wrong tack, there is nothing to be gained by crowding!

The following contribution to the discussion has been received from Mr. Charles R. Ashbee [F.] in response to a request from Mr. MacAlister:—

I have read Mr. Raymond Unwin's Paper with much interest, and in response to your request send you the following notes upon it as a result of my recent experiences in U.S.A.

(1) It may be said almost that Mr. Unwin has not gone far enough. When I was in Washington, Boston and New York again this time I was invited to meet some of our colleagues at their different chapters, and in Washington I was asked to give my impressions as to the recent architectural development in that city, in special relation to the new Zoning Law. I had visited the city at regular intervals over a period of 30 years. I did this, but what struck me most was that the excellent Zoning regulations, in Washington at least, had just come too late to save the "scale" of the city; and next that, as a result of the war, the architects had lost ground to the engineers.

I ventured at the request of some of my American colleagues to make some suggestions, in the form of a letter, as to the possible modification of the new Zoning regulations in the interest, before it was too late, of some of the streets radiating from the Capitol where the "scale" as L'Enfant first conceived it still held good.

(2) A point to be observed, I think, and with which Mr. Unwin is doubtless familiar, though he does not deal with it in his paper, is that high building is always to the advantage of the man who gets in first. It is like an early market for spring vegetables. The next comer gets less, and so following, and the community is finally landed with waste produce, and possibly ruin on the area built upon.

(3) Further, the movement of finance is now so rapid

## JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

in American cities that, I am informed, the period over which the return on high building investment is now calculable has shrunk to ten years. After that the building is reckoned as financially exhausted, and it may be regarded in the light of depreciated plant in mechanical industry, to be scrapped in due season.

That is a consideration not sufficiently taken into account when we are dealing with architecture, town-planning and the amenities of our cities. In other words, the increased "speeding up" of finance is beginning to act in the interest of the amenities; for the town plan with its amenities is nothing if not permanent, or conceived, as all architecture must be, with a permanent and not an immediate objective.

(4) Mr. Unwin has wisely called attention to the reaction of motor traffic development in relation to city planning and high building. There is no doubt the "cheap car," and with it possibly the "jitney," so well known in Western American cities, is coming upon us, and must bring with it vast changes. We in England have in no way yet envisaged the fact, patent to everyone in the American city, that any mechanic, or clerk, or shoeblack with a mechanical twist, can now get a car on payment of 5 dollars, and pay off the £60 (sixty pounds) cost of it on the hire system, exchanging the old car or what is left of it for a new one the year following, so that his car, which he drives himself, costs him exclusive of petrol about £40 a year. All this is the result of the "automatic tool" and the development of machinery with interchangeable parts and applied to "one model."

All this is bound to affect profoundly English architecture and town planning in the immediate future, and we English architects who wish to save the amenities of our country should be prepared in time with plans for the protection of our cities, and still more so of our villages. And this, I conceive, is to be done less by the old-fashioned method of widening, or paring, the roads to fit them to the car, usually a futile process, than by boldly planning new roads round them and through them.

(5) The suggestions Mr. Unwin makes in regard to London congestion are interesting; but I rather fancy if advanced American opinion were now applied to the London traffic problem it would, in the light of latter-day experience in high building and car development, advise three courses as of the first immediate importance:

- (a) A new main artery on the south side of the Thames, in a line from Vauxhall Bridge, through Elephant and Castle to the Tower, for cross traffic. This combined with the transfer of Charing Cross station to the south side, and the making of the two new bridges of Charing Cross and St. Paul's.
- (b) The proper use, once again, of the Thames waterway, not by a revival of the dear old "penny steamboat" with music, but a properly engineered tidal service, with fast boats adapted to business hours.
- (c) The keeping of all private cars outside a certain

inner radius of London, during the working hours of the day, with properly appointed public parking stations.

There are, of course, other solutions to the problem, but those are the most pressing, and it will be recalled how some of us architects urged the first and the second over twenty years ago, and before the motor-car or the high-building threat came upon us. The first was regarded then as a wild and impossible dream. It is now a necessity.

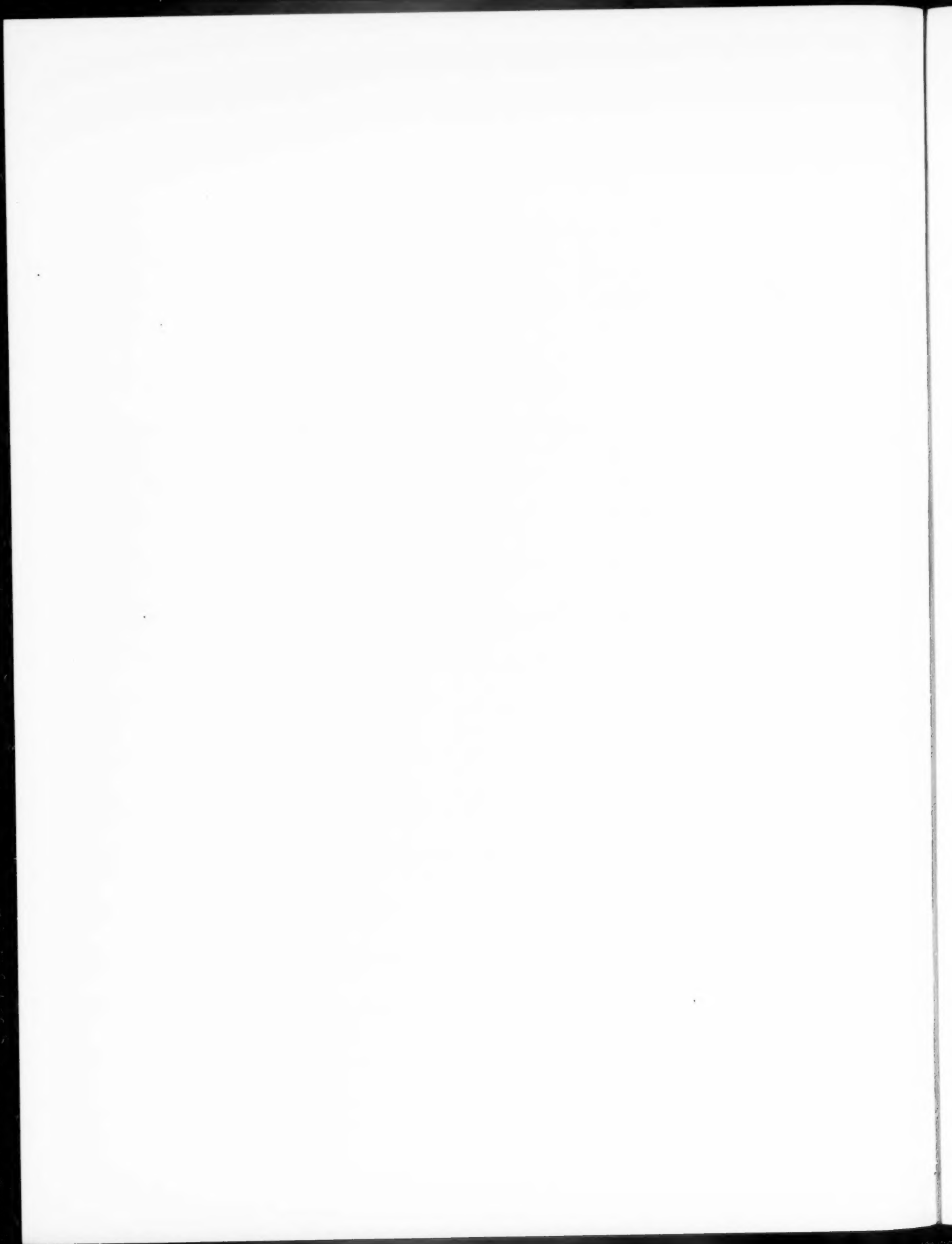
(6) I find in my Journal, under heading, "Washington, February 28, 1923," the following; you may think it worth reading, or adding to the above notes, though but a comment:

"This city is falling behind. It is not fulfilling the promise of its last two decades. The architects and men of taste are losing their grip, and the development of what bade fair to become the finest capital in the world has got into the hands of mere financiers, building contractors, and real estate dealers. I met the Chapter of Architects, was taken round and 'lunched' by Col. Keller, visited with him what are called, rather grimly, the 'devastated areas.' Also I studied the new Zoning Law. It has come too late. The scale of one of the fairest parts of the city is now destroyed. Apartment houses and tall buildings dominate the 'White House' and the 'Octagon,' and one of the finest points of the city is scarred by a monstrous structure—the 'Wardman Park Hotel.' I was shown Richardson's masterpiece in domestic architecture that they were gutting and destroying, and I watched the Jew contractors 'levelling up' for building sites one of the loveliest estates in Virginia: it was to be covered, not according to its contours, trees and gradients, but all the hills blown up, and flattened into the hollows in the approved manner of the American engineer, with boxes for 'Babbits.' I hope to God they may save the scale of Pennsylvania Avenue and the Dome of the Capitol while there is yet time, but in the present reactionary mood of Washington anything may happen.

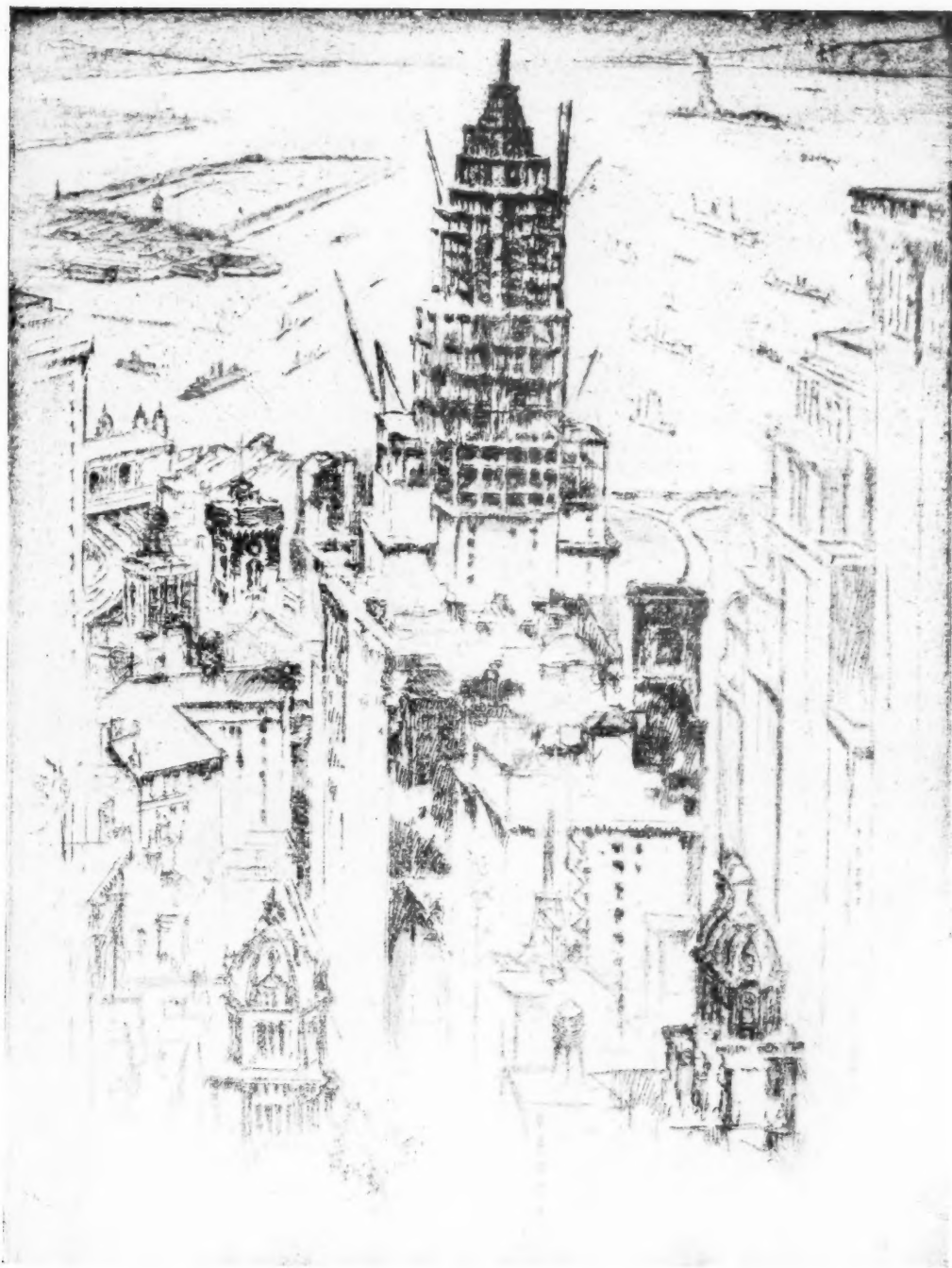
"They tell me that the war has done this; that the architectural profession broke down in office organisation; that power fell to the engineer, and that he has to do what financiers and real estate men tell him. They have to cover the land with 'little homes,' made to pay. Town-planning and dignity thus go by the board. It seems monstrous that in a city like Washington, in the wealthiest country in the world, and with L'Enfant's tradition, this should happen; that the future should be sacrificed to the immediate needs of a group of speculators whose return is admittedly in the next ten years. If that's all, why not buy the beggars out before they're allowed to damage the city for ever? It is that sort of extravagant folly, in the ruin of the fairest of their cities, that it is so hard to pardon the Americans—more particularly where they have the example of Europe, and our blunders in England, to guide them."

SIX ETCHINGS OF  
HIGH BUILDINGS IN NEW YORK  
By JOSEPH PENNELL, HON. ASSOC.

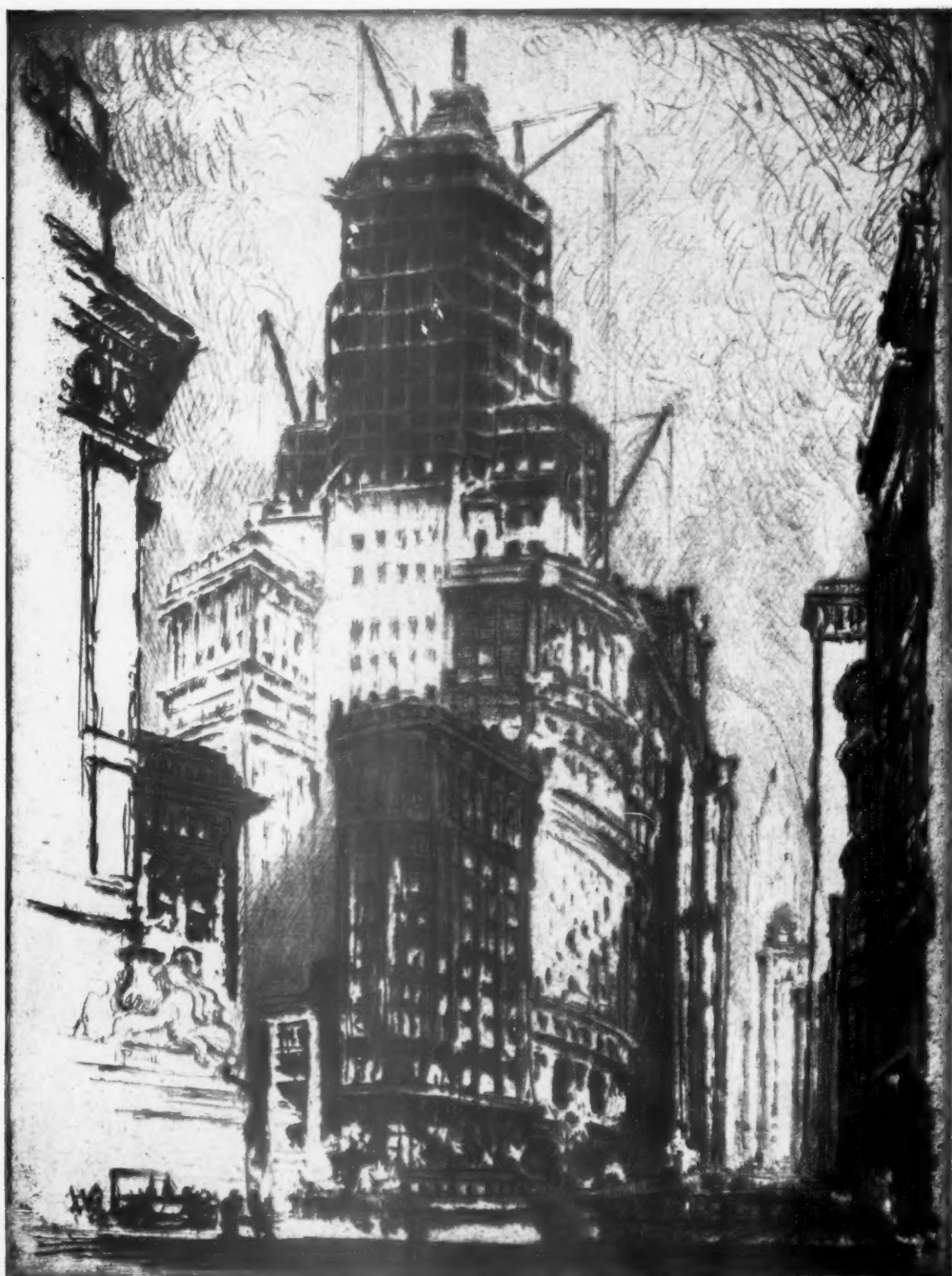
[THE ORIGINAL ETCHINGS HAVE RECENTLY BEEN  
PRESENTED TO THE R.I.B.A. BY THE ARTIST]



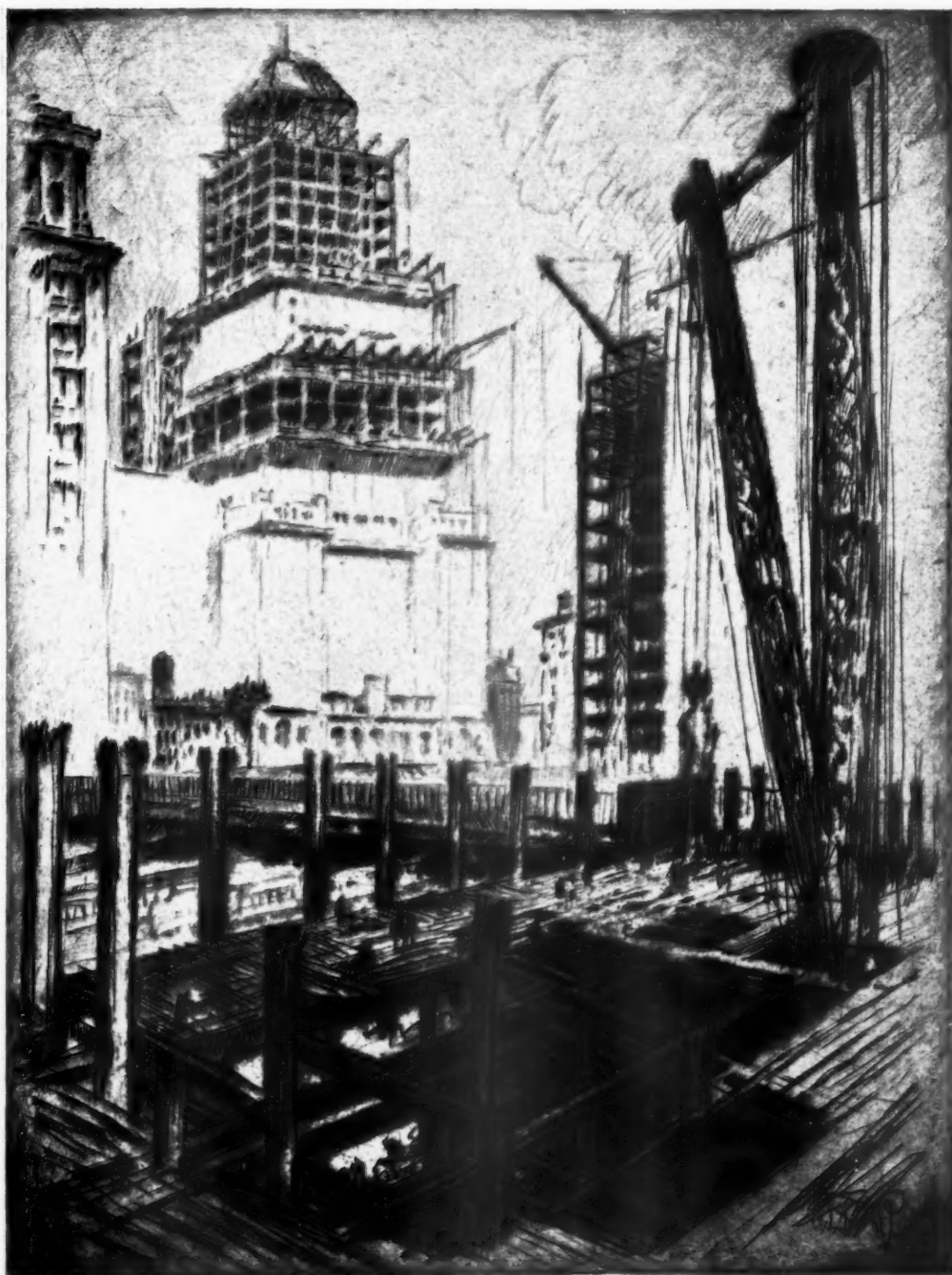




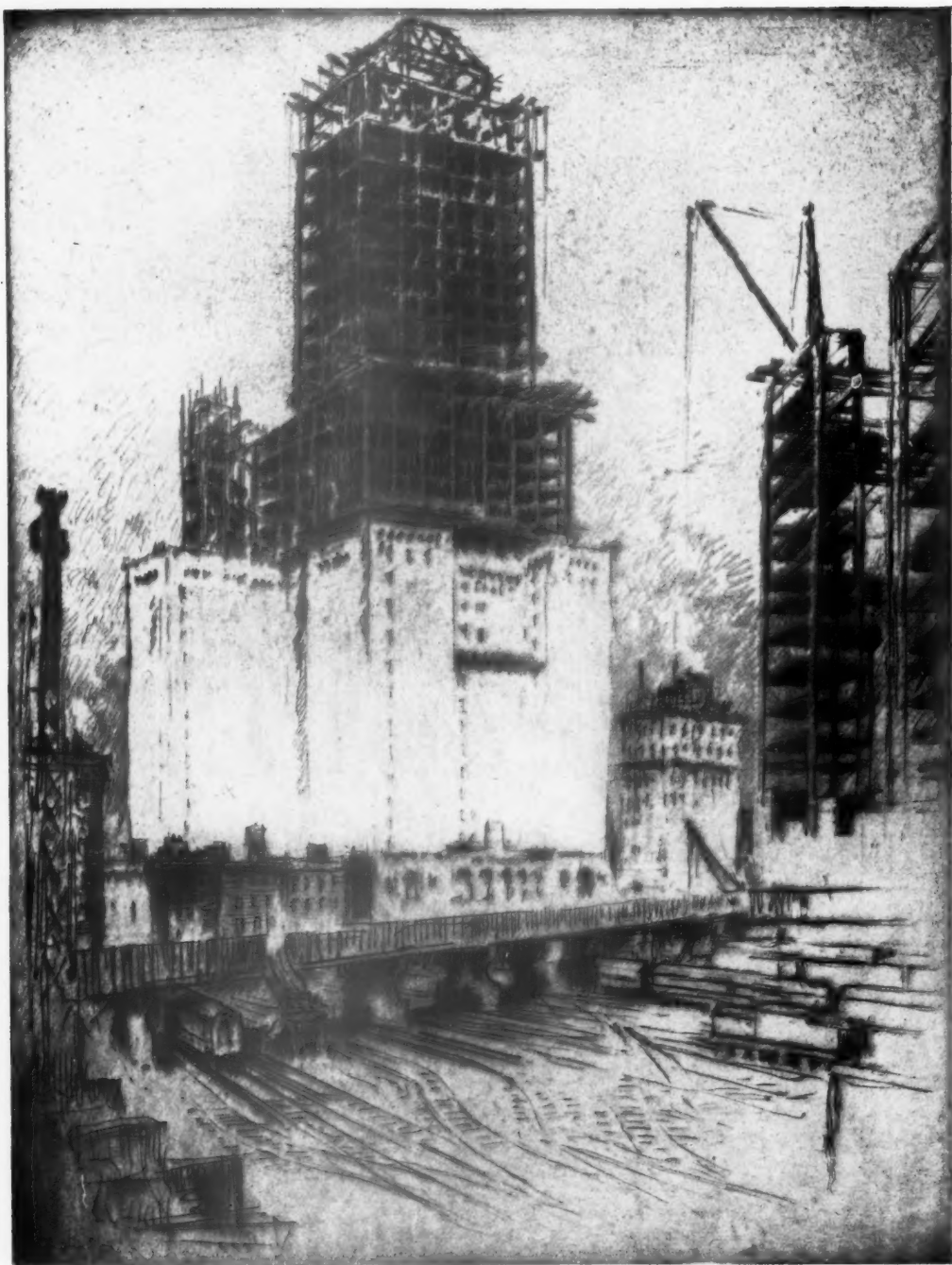
STANDARD OIL TOWER. THOMAS HASTINGS, ARCHITECT.  
From an etching by Joseph Pennell.



STANDARD OIL BUILDING. FROM THE BATTERY LOOKING UP BROADWAY. THOMAS HASTINGS, ARCHITECT.  
From an etching by Joseph Pennell.



ROOSEVELT HOTEL FOUNDATION IN FOREGROUND. SHELTON APARTMENT IN DISTANCE. A. L. HARMON, ARCHITECT.  
From an etching by Joseph Pennell.

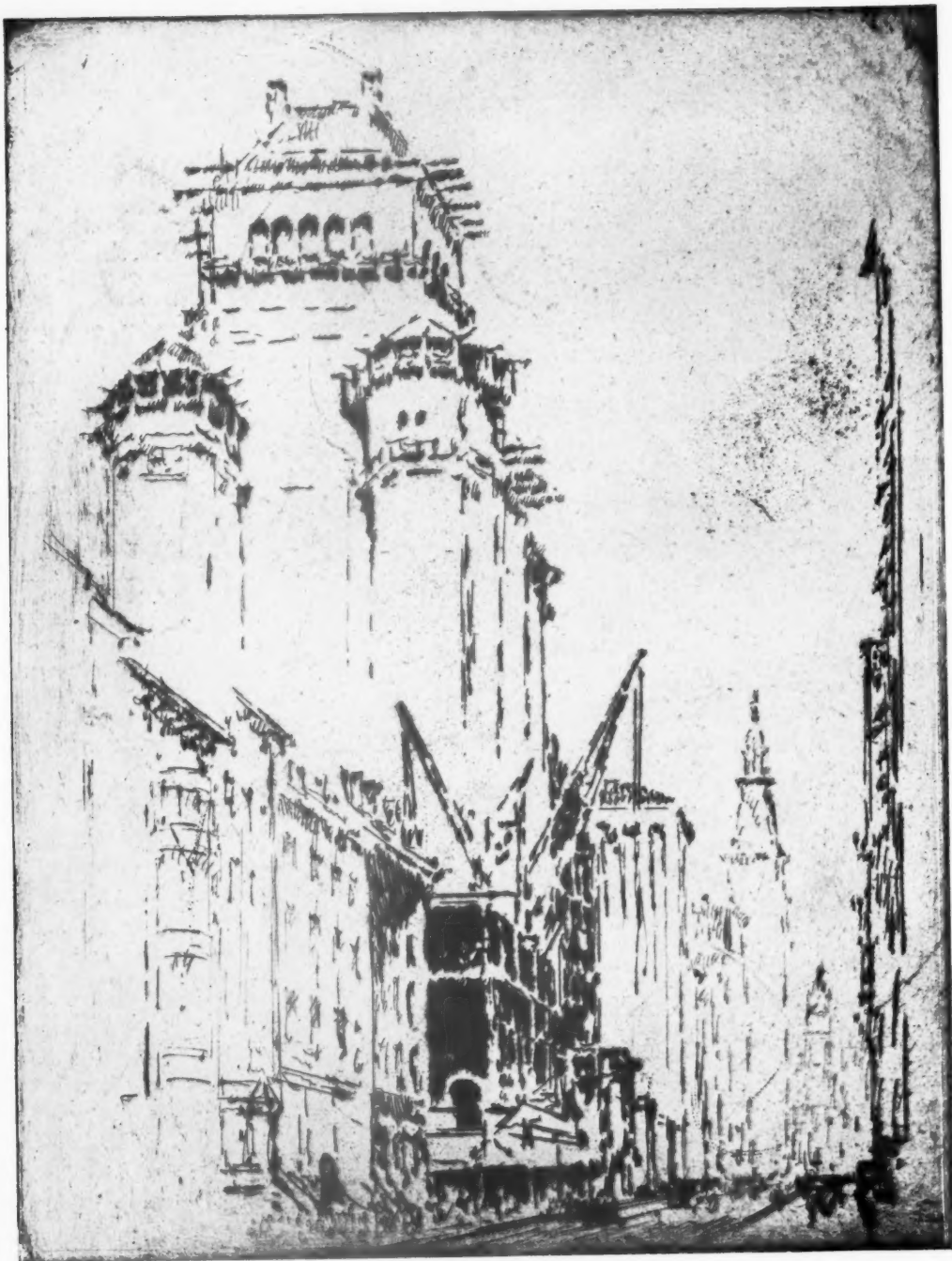


SHELTON BUILDING. A. L. HARMON, ARCHITECT.  
From an etching by Joseph Pennell.





SHELTON BUILDING FROM LEXINGTON AVENUE. A. L. HARMON, ARCHITECT.  
From an etching by Joseph Pennell.



FRATERNITY BUILDING, MADISON AVENUE.  
From an etching by Joseph Pennell.

## Reviews

**LONDINIUM ARCHITECTURE AND THE CRAFTS.** By W. R. Lethaby. 8vo. Lond., 1923. 12s. 6d. [Duckworth & Co., 3 Henrietta Street, Covent Garden.]

"Some screen appears to be set up between us and our Roman works of art. Even the mosaics . . . seem to be regarded as mere museum objects and subjects for antiquarian tracts."

These words which stand at the head of Chapter VII give us the keynote of the book; it is this screen Professor Lethaby has sought to remove, and it is remarkable how far, in a short book of 245 pages, he has succeeded.

It is a thoroughly practical work, clearly printed on pleasant unglazed paper, and profusely illustrated with sketches—mostly by the author—which admirably elucidate the text.

The first thing that strikes one is the amazing industry that has gone to the making of the book; Professor Lethaby seems to have examined all the extant remains and written records dealing with the period, and has something illuminating to say of most of them, and where he differs from other authorities is able to give very convincing reasons for his opinion.

His inferences, however, as to national influence modifying Roman art and culture seem open to doubt. He quotes M. Louis Gillet as saying (Chapter I): "These Gallo-Roman works show little of Rome, they are already French," and adds "We should hesitate to say just this of Britain," and goes on to speak of the "new experimental spirit" in provincial Roman art. Now this "experimental spirit" is just as evident in Rome as in the provinces; it is absurd to judge Roman architecture only by the great monuments and the works of that literary amateur Vitruvius; there is abundant evidence in Italy and Rome itself of freedom and innovation in art.

All Roman remains in Britain, and—*pace* M. Gillet—in France also, are derived from Roman originals, and local differences are easily accounted for by climate and the materials available; a cultivated Roman tourist would probably have found them banal and uninteresting.

It is indeed remarkable that the centuries of Roman occupation had no more influence on our art than on our language; we have had to recover painfully from foreign sources the art literature and laws of Rome. The analogy of the British occupation of India imposes itself—would our withdrawal and the subsequent anarchy and internecine warfare have a like effect?

A great point which Professor Lethaby makes is the need of a large scale map of London on which should be plotted all the indications of Roman times which have been discovered. Surely this is a work which should be undertaken by the Institute! C. E. SAYER [A.].

**DIE ARCHAISCHE POROS-ARCHITEKTUR DER AKROPOLIS ZU ATHEN.** By Theodor Wiegand. Text, 11 inches by 9½ inches; plates, 24 inches by 18 inches. [Cassel und Leipzig, 1904.]

This excellent publication contains the well-known researches of Dr. Wiegand on the archaic architectural and sculptural fragments of the Athenian Acropolis, mostly in the soft stone from the island of Poros which was the prevailing building material at Athens before Parian and Pentelic marble came into fashion. The letterpress volume of 233 pages is well illustrated by line drawings and photographic blocks. The folio has 17 plates, 13 of which are in colour, three are photographic, one is photographic-tinted (not a very successful process) and one is in line. The presentation generally is exceedingly good, and it is a pleasure to see the late M. Gilliéron's delightful drawings of the typhon-groups in the Hekatompedon so worthily reproduced.

The book deals with two principal works—the Old Athena Temple (Hekatompedon) "in antis," which lay to the south-west of the Erechtheion, and the later peripteral (but still archaic) temple built by Peisistratus, which was on the same site. Both are extremely important monuments in the history of architecture and sculpture, and their remains form one of the great attractions of the Acropolis Museum at Athens. To the Hekatompedon belong perhaps the most important colour fragments in the whole range of Greek architectural art, not only the typhon-groups already referred to, but many details in colour. To the Peisistratus temple belong the "Athena and Giant" fragments which are the archaic Athenian version of this theme, met with elsewhere, as at Selinunte. The Athenian fragments are unmatched in that extraordinary spontaneity and power which is found in the finest archaic Greek sculpture. The fine quality of the detail in this Peisistratid sculpture can be judged from the foot shown in Fig. 131 (text volume). These great works are in marble.

There is also a chapter on "Four Small Poros Buildings," illustrating, among other things, in what manner many of their fragments are built into various walls and sub-structures on the Acropolis. The chapter "Architectural Fragments," contains a lot of interesting detail, including some in terra-cotta, finely drawn or photographed. Further chapters discuss the archaic "tier groups" of the pediments, and the sculpture and colour.

One outstanding fact may be noticed in all this archaic work of the Athenian Acropolis—its pronounced Doric character, tending, in the architectural forms, to great simple planes, and disclosing hardly any nearer approach to a wooden architecture than the Parthenon itself. The forms of cornice, triglyph, metope, epistyle and anta conform to a generally

## JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

unvarying formula, containing, of course, slight divergencies from type, but embodying a well-understood tradition, which one must believe had prevailed for a considerable time. Even this early Doric work, however, has a subtle flavour of Ionic grace which renders the work of the Athenian Acropolis unique in Greece, and therefore unique in the world.

Apart from M. Gilliéron, Messrs. Doerpfeld, Schrader, Watzinger and Wilberg were associated with Dr. Wiegand in the production of this fine book.

THEODORE FYFE [F.]

### ARCHITECTURAL EDUCATION A CENTURY

AGO.\* By Arthur T. Bolton, F.S.A. [F.],  
Curator, Soane Museum.

Mr. Bolton continues his investigations of documents in the Soane Museum, of which he is the enthusiastic keeper. This paper gives the office record of George Basevi, b. 1794, d. 1845, pupil of Sir John Soane for five years from December 1910. The office routine, the staff, the influence of the principal and the nature of the work can be readily pictured by the reader of Mr. Bolton's paper, and his comments, with a few personal reminiscences of parallel incidents, add to the general interest of the record.

A tabular list is appended of pupils, assistants and clerks in Soane's office, drawn up by the late Walter Spiers and completed by Mr. Bolton. The number of names given is 55, and the entries begin four years after Soane began practice, and cover the 53 years from 1784 to 1837. Fifteen of the names appear in the *Architectural Dictionary*, and of these, G. Basevi, J. M. Gandy, A.R.A., C. J. Richardson, of Elizabethan note, and Sir R. Smirke, R.A., of the British Museum, are only known to fame.

The office records enable Mr. Bolton to furnish a sufficient picture of G. Basevi's five years in Soane's office, and his sketches and drawings of the ensuing three years of travel in Italy and Greece. He was an artistic youth of a careful habit in draughtsmanship, enthusiastic and sane in his opinions, and manifestly well trained in the practical work of a busy office under a diligent master.

Ultimately the buildings that Basevi erected became the proof of both his quality and training. Londoners know the Conservative Club in St. James' Street, with its dignified front and almost too magnificent hall and staircase. They may not know that Belgrave Square and Thurloe Square opposite to the Victoria and Albert Museum are also his work.

The Fitzwilliam Museum façade at Cambridge is one of the most successful classical compositions of its day, a day when portico and peristyle were indispensable to the respectable dignity of every building, secular or religious. Refinement of detail, complete correctness

of proportion, simplicity of aim in composition and constructive efficiency are all displayed in such buildings as the Fitzwilliam by Basevi, St. George's Hall, Liverpool, by Elmes, or the British Museum by Smirke. One scarcely knows what other general qualities to desiderate in modern architecture, apart from the particular interest that personality gives to detail. The reflection may ensue that Basevi's patient training in the conscientious routine of Soane's office, specially adapted as it was to pupils by his lecturing work, was after all a satisfactory basis for his architectural practice and reputation.

BERESFORD PITE [F.].

### LITTLE THINGS THAT MATTER FOR THOSE WHO BUILD. By Edwin Gunn, A.R.I.B.A. 5s. [The Architectural Press.]

This book is artistically and sensibly printed and the sketches are clear and good, but the title should have been "A Few of the Little Things That Matter." The "tips" contained in the book are mostly refinements, as one may term them, on speculative garden-city brick-built residences and will be useful to the young architect who has well-to-do clients ready to pay for better work.

Much work is now done on speculative terms, where the client comes along after building and the extra cost required would often handicap the sale, although if clients were wise it ought not to. Where many houses are built at the same time the extra costs would not be so noticeable.

Mr. Gunn advocates "as wide frontage as the client can afford." Advice such as this should carry with it equally important advice on depth, number of plots to acre, fencing, garden making, road charges and making, etc., and would require a chapter. In fact, this desire to add to the "little things" extends through the book.

Mr. Gunn shows up a very frequent defect in dampcourses, when a solid floor comes against a wood floor, but it is a question whether, with good hard flettons in foundations, the extra concrete advocated is much use, unless "treated," for ordinary concrete is not impervious to moisture. It is wonderful what numbers of floors escape dry rot, when one considers the amount of bits of wood left in the concrete and poor ventilation. It would be simpler and cheaper to put a course of blue brick in cement or carry the asphalt dampcourse up to paving.

Mr. Gunn mentions shrinkage of ground owing to dry weather, but here he is dealing only with clay sites, as other sites were not affected. His solution of the settling of sleeper walls is not much of an improvement because, unless the whole floor settled uniformly, one would have to deal with it just as one would have to wedge the ordinary floor up. Mr. Gunn's remarks on foundations and water supply for fen lands are useful, as also the Ministry of Agriculture's manual extracts. The notes on datum pegs being left in concrete are important, as a fairly recent law case gave heavy damages against builder and architect for leaving the pegs in and causing dry rot.

The advice about the usual hollow walls is good, but as they are built for cheapness, Mr. Gunn will very soon make it better and as cheap to build a 14 inch wall, and, indeed, I believe that in the course of twenty-five years or so the cost of replacing the decayed ties, etc., will be as much

\* This paper was published in the JOURNAL of 18 August 1923.



## CORRESPONDENCE

as a 14 inch wall in the end, and one could point this out to a client. With regard to pointing and the use of soft brownish-toned mortar, unless the wall is 14 inches it would be wiser to use cement, though not so "tony," as a hollow wall needs all the strength you can give it.

The notes on roofing, gables and tiling are good, and the elimination of lead, special tiles and cutting in valleys is concisely explained. With regard to "pantiling" and keeping out the weather, undoubtedly the old method of reeds and mortar is admirable, but it is a curious fact that many old roofs without any bedding, pointing, or torching show very little signs of weather getting in.

The notes on windows, doors and fireplaces are all useful and the detail for a peat fireplace more than interesting. The author's notes on drains, sinks and taps, etc., are very good. With regard to freezing of tanks and pipes in roofs, it is simpler to have them well felted. Hot-water systems are tricky matters, and Mr. Gunn deals with one or two useful tips.

C. O. NELSON [A.].

## Correspondence

PIRRO LIGORIO.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—A perusal of Mr. C. A. Harding's interesting article on Pirro Ligorio in Vol. XXX, No. 20, shows that a considerable amount of care has been expended on its preparation. It may, however, be opportune to call the attention of your readers to an article of my own on *The Bodleian MS. of Pirro Ligorio*\* in the *Journal of Roman Studies*, ix (1919), 170 sqq., where some additional information may be found—a good deal of which I have myself derived from Hülsen's various articles in the *Römische Mitteilungen* and from Friedländer's *Das Kasino Pius des Vierten* (Leipzig, 1912), a book which Mr. Harding should surely have consulted and cited. Further evidence for the date of his death may there be found,† and information in regard to the various versions of his voluminous work on the antiquities of Rome, Mr. Harding's account of which is by no means correct.

I may perhaps be allowed to call attention to a few points of detail.

Mr. Harding's statement that the remains of the Villa of Quintilius Varus were laid bare during the preparation of the site of the Villa d'Este is erroneous (see *Papers of the British School at Rome*, iii, 155).

I should be inclined to think that the project for the restoration of the *Thermae* of Diocletian of 1558, attributed to Ligorio, which according to Letarouilly is to

be found in the Vatican archives [*sic*], is probably a copy of the rare series of engravings by Cock of Antwerp after drawings by Sebastian de Oya, published in that year (Lanciani, *Ruins and Excavations*, 438).

The *Diario Romano* of Chracas for 20 June 1772 (Vol. 337, No. 8380, p. 2) tells us that the reigning Pope (Clement XIV) had bought the plates of this work, which had been the property of one Monsignor Balzerini, and was making arrangements to have copies printed off.

The attribution to Ligorio of the two campanili above the north porch of St. John Lateran is erroneous. Lauer says (*Le Palais de Latran*, 314): "Ligorio, qui ignorait complètement le style gothique, respectait néanmoins quelques parties de l'ancienne façade, la voussure et le portail faits par Grégoire XI, dont il reprit tout la partie supérieure, remplaçant le pignon, qu'il démolit, par un mur plus élevé, visible encore sous les balustres: enfin les campaniles, dont il se borna à refaire en brique les parties entamées."

To say that "Ligorio carried out some repairs to the Acqua Vergine, better known to visitors to Rome as the Fontana di Trevi," is misleading when we consider that the present structure of the latter dates from the eighteenth century (though it probably owes its design to Bernini).

Nor is the description of the Vigna of Pope Julius on the Via Flaminia satisfactory. It has been known for some years\* that the fountain which now forms the lower storey, the work of Bartolommeo Ammanati, was all that was at first erected on the site. Indeed, a contemporary fresco in the Villa di Papa Giulio shows the fountain only, and so do plans of Rome of 1555 and 1561.

The see to which Paul IV (not III) consecrated Michele Ghislieri was, of course, not Neri, but Nepi, or rather Sutri and Nepi.

The section in regard to Ligorio's published works is unfortunately very inaccurate. No mention is made of his *Libro delle Antichità di Roma*, published in 1553. The plan of Hadrian's villa was revised by Contini, it is true, in 1634, but was not published until 1671 (in Kircher's *Latium*).†

I have not been able to find any trace of Ligorio's authorship in the description of the amphitheatre at Verona, published by Polenus,‡ who does, however, in that volume (V, p. 150 sqq.) publish Ligorio's *De vehiculis antiquorum diatriba*, nor can I see in the *two* (*sic*) *Thesauri* of Graevius any description of the Villa d'Este from the pen of Ligorio. There is no mention (except as "drawings of the Circus Maximus") of the

\* I may say from the outset that I have only studied this MS. from the archaeological point of view.

† Mr. Harding is right in putting it in 1583, but the strongest piece of evidence is unknown to him. From it he would also have learnt that Ligorio left several daughters. As to his birth, there is no direct evidence.

\* See Egger, *Römische Veduten*, I, pl. i (Vienna, 1911); Balestra, *La Fontana Pubblica di Giulio III* (Rome, 1911); Bargellini, *Il Palazzo di Pio IV sulla Via Flaminia* (Rome, 1923).

† See Winnefeld, *Villa des Hadrians*, 7.

‡ The work in question is Scipione Maffei's *De Amphitheatro ac praecipue de Veronensi*.

## JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

engravings after Ligorio which are to be found included in Lafrery's *Speculum Romanæ Magnificentie*, nor of his large restored plan of Rome. His cartographical productions are, on the other hand, alluded to, and I regret that I omitted to mention them myself. Those I know of are: the kingdom of Naples, Friuli, Hungary, Greece, Spain, Gallia, Belgica (Belgium and N. France), and France. What, however, are the three manuscript volumes on Rome and the Campagna, dedicated, the first to Cardinal Ippolito d'Este, the second to Cardinal Alessandro Farnese, and the third to the Holy Trinity?—Yours very truly,

THOMAS ASHBY,  
*Director of the British School at Rome.*  
THE WREN SOCIETY.

2 Bedford Square, W.C.1.  
7 January 1924.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—This Society, which was founded shortly after the Bicentenary Celebrations of February 1923, for the purpose of publishing the drawings of Sir Christopher Wren and other documents throwing light on his work, has now in hand a portfolio to contain the drawings of St. Paul's in the All Souls Collection, which will be issued with explanatory text as early as possible this year. It is hoped that many who have not already joined the Society will avail themselves of the opportunity of doing so now, since wider support will be needed to enable the Society to extend its activities to other subjects and other collections. Matter is abundantly available, but must remain little known till it can be reproduced. The annual subscription is one guinea, and subscribers will receive annually a portfolio of from 20 to 25 collotype plates with text. I shall be happy to send prospectus and subscription form to all who are interested.—Yours faithfully,

W. H. WARD [F.], *Hon. Sec.*

### THE INSTITUTE (BUSINESS) MEETINGS.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Force of circumstances has for several years debarred my attendance at meetings of the Institute. On Monday last I had looked forward to renewing happy recollections of my student days, but two things leave an unpleasant impression on my mind. The first is the acrimonious, and at times undignified, tone of debate—quite alien to the spirit of former years. The second, the fact that important matters of principle affecting the prestige of the Institute can be settled by a majority of two on a vote of 60 members out of an electorate of more than 3,000.

Whilst I have no desire to widen the breach which appears in our ranks, may not some change of system in recording votes be worthy of consideration by the Council?—Yours faithfully,

PERCY MORRIS [F.],  
*President of the Devon and Exeter Architectural Society.*

### THE PRESERVATION OF ANCIENT MONUMENTS.

The second part of Sir Frank Baines's Paper on "The Preservation of Ancient Monuments and Historic Buildings" (the first part of which appeared in the JOURNAL of 22 December) will be published in the next issue of the JOURNAL.

Mr. Raymond Unwin, who read his paper on "High Buildings in relation to Town Planning" before members of the R.I.B.A. on 17 December, was liberally reported by special cable on the front page of the *New York Herald* on the following day, 18 December. "Raymond Unwin, of the Ministry of Health," the report opens, "speaking before the R.I.B.A. to-night, warned London to beware of the skyscraper, and cited as horrible examples, New York, Chicago and other American cities, victims to the curse of high buildings. Unwin recently visited America, where he studied problems arising from building congestion." And then follow extracts from Mr. Unwin's paper, which is published in the present JOURNAL.

In the January number of *English Life*, Mr. W. N. Adams [A.] contributes an interesting article on the "Planning of a Small Country House." Amongst other things, he says "that very rarely indeed can one particular design for one particular site be repeated in any other position unless the splitting up of the land for sale to prospective house builders has been done according to a preconceived plan. More and more this work, too, is being entrusted to architects and specialists, and a new branch of the architectural profession, that of town planning, daily becomes more and more important."

Mr. E. H. New has just added to his "New Loggan" series of prints a comprehensive bird's-eye view of All Souls College drawn by himself and photo-engraved by Mr. Emery Walker. In this plate, as in the whole "New Loggan" series, Mr. New has followed the general method adopted by David Loggan in his *Oxonia Illustrata* of 1675: which shows the extent of the college precincts, as well as the plan and the south elevation of the building. The drawing is as meticulous and skilful as the previous drawings of the series in which the artist presents so sympathetically views of the famous buildings of Oxford. Copies may be obtained from Mr. New, at 17 Worcester Place, Oxford, or from Messrs. Batsford, Ltd.

### "THE STRUCTURAL ENGINEER."

The January No. of the official journal of the Institution of Structural Engineers (formerly the Concrete Institute), now issued under the editorship of Mr. H. Bryant Newbold, U.S.A., is issued under a new and attractive format. Among its contributors are Mr. H. D. Searles Wood ("Timbers of the Empire"), Mr. E. F. Etchells ("Algebra of Magnitudes: A system complementary to the Algebras of Number"), Mr. W. A. Green ("Bending in Reinforced Concrete Columns"); other contributions include "Piles and Sheet Piles in Reinforced Concrete," "The Capabilities of Concrete," "Aluminium Paint," etc.

## INAUGURATION CEREMONY

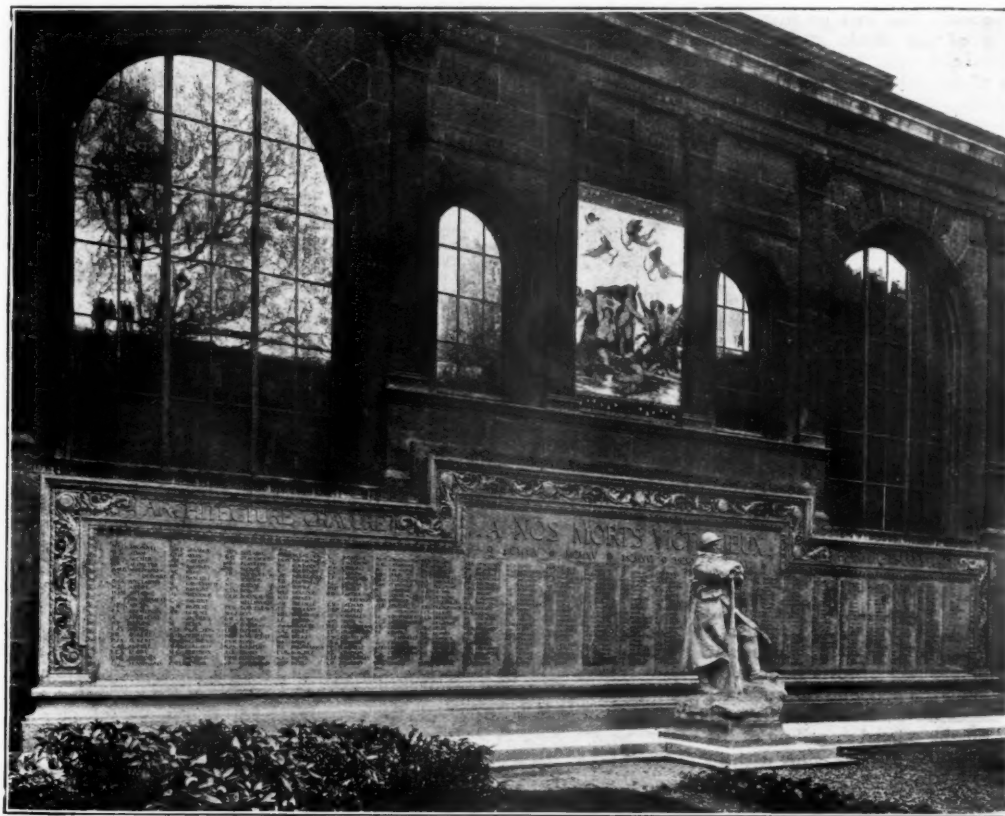
# Inauguration of the War Memorial of the Ecole des Beaux-Arts

BY H. BARTLE COX [A], S.A.D.G.

I felt very honoured at being asked to represent the R.I.B.A. at this solemn occasion, and was pleased to carry out the wish of my English colleagues by placing a wreath in the name of the Institute at the foot of the monument.

The inauguration, a most impressive ceremony, took place on Saturday morning, 15 December, at the Ecole des Beaux-Arts, 17, quai Malaquais, Paris, in the presence

at 10.30 in the famous Salle de Melpomène so well known to students, for the public exhibitions of their studies, who go there periodically to see how their efforts have been judged, and to see how they stand in relation to one another. In the alcove of this hall, around the huge full-sized plaster cast of the statue of Melpomène was erected a low stage upon which were



of the Président de la République and of the Président du Conseil. By special permission from the "Ministère de la Guerre" a detachment of the Garde Républicaine carrying the Drapeau was told off to accompany the ministers of State.

M. Millerand and M. Poincaré were received by M. Léon Bérard, ministre de l'instruction publique et des beaux-arts; M. Paul Léon, directeur des beaux-arts; and M. Albert Besnard, the eminent painter, membre de l'Institut, directeur of the Ecole. They assembled

placed the seats for the ministers, generals (Mangin, Debeney, de Castelnau, etc.), M. Naudin, préfet de police, professors of the Ecole and numerous personalities connected with the world of art. The hall, decorated with national colours, was filled with relatives and friends of the deceased in whose name the sad ceremony was celebrated.

The monument was raised by subscription organised by a committee of professors. Many generous donations were forthcoming, and a "Tombola" was arranged with

## JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

tickets at 100 frs. each, which brought in 40,000 frs., the State adding one-tenth to the amount subscribed, bringing the total up to 180,000 frs.

As representative of the Institute, I was honoured by a seat among the families of the membres de l'Institut. The first speech was that of M. Henri Constant-Bernard, architect, the grand massier. He thanked the President for his high testimony of sympathy in so kindly rendering homage to the fallen students of the Ecole. Then the directeur of the Ecole, M. Albert Besnard, gave some eloquent statistics. The committee for the raising of the subscription, he said, was presided over by his illustrious predecessor and friend, Léon Bonnat. He told us that out of 4,000 mobilised members of the Ecole 470 had fallen on the field of honour. In a touching speech he then addressed the parents of the dead, commencing with the words "Souvenez-vous, mères, tandis que," etc., and in spite of the phrase, "c'est par la douleur que votre amour maternel a trouvé le secret de sa résistance," one could not help noticing in the hall many handkerchiefs and lowered heads.

The ministre, M. Léon Bérard, then made a fairly long impromptu speech, pointing out the relation of the artist to the rest of the world. He made allusion to the painter Henri Regnault, whose bust (by Chapu) is close to the Monument aux Morts. He adjured young students to an absolute submission to a common cause, advising them not to isolate themselves in an inaccessible mystery, not to exclude themselves from their epoch, to be of their time without, however, taking as rule the caprice of the moment. Then referring to the school, he pointed out that their lessons can only serve as a first initiative, quoting from Taine, who so brilliantly occupied (1864) the chair of aesthetics. He said: "L'Ecole des beaux-arts fournit le foyer et le bois; l'étincelle vient d'ailleurs." At the school one learns spelling but not sentiment. This, Mr. Secretary, in my opinion, is philosophically important to our social calling: *l'étincelle vient d'ailleurs*. The ministre de l'instruction finished by asking students to have enthusiasm, conviction and faith.

The bugles sounded, the massier of each atelier read out the list of their lost comrades, terminating each list by the formula "Morts pour la Patrie." Bugles and drums closed the ban, and the audience with the President of the Republic in front then repaired to the Cour du Mûrier for the official unveiling of the monument.

In this delightful little court with its Italian aspect, the ceremony was carried out with seemly pomp. A company of the Garde Républicaine with the flag did the honours.

The design of the monument is due to the collaboration of Monsieur Alexandre Marcel, architect to the Ecole, who has kindly given me the accompanying illustration, and to the sculptor, Monsieur Jean Boucher, who executed the statue representing the Poilu. The back of the monument is in pink stone from Burgundy (Comblanchien). At the top on the left are the words "Architecture—Gravure," in the centre, "A Nos Morts Victorieux, 1914, 1915, 1916, 1917, 1918," to the right, "Peinture—Sculpture," then a list of the 470 students.

The Poilu in characteristic attitude is in a stone also from Burgundy (Poilnay). In order to place this monument it was necessary to take down the painted coloured plaster casts of faience by Della Robbia. They have been cleaned and placed in the vestibule at the top of the staircase leading from the Cour du Mûrier to the Salle de Melpomène.

On the day of the inauguration I handed in, on behalf of the Institute, the following note:—

Monsieur le Directeur de l'Ecole des Beaux-Arts, Paris.

MONSIEUR,—Je vous prie, au nom de l'Institut Royal des Architectes britanniques, de bien vouloir accepter cette gerbe de fleurs en témoignage sympathique de mes confrères d'outre manche. Voulez-vous croire, Monsieur, à l'expression de nos sincères condoléances pour la perte des braves élèves de l'Ecole nationale supérieure des beaux-arts tombés au champ d'honneur en combattant l'ennemi commun de la France et de l'Angleterre.

H. BARTLE COX,

Paris.

Membre de l'Institut Royal, etc.

In answer to which a few days later was received the following acknowledgment:—

Le Directeur de l'Ecole Nationale Supérieure des Beaux-Arts, Membre de l'Institut, à Monsieur le Président de l'Institut Royal des Architectes Britanniques, 9 Conduit Street, à Londres, W.1.

MONSIEUR LE PRÉSIDENT,—J'ai l'honneur de vous remercier de tout cœur de l'attention délicate que vous avez eue en faisant déposer au pied du Monument élevé à la mémoire de nos Elèves Morts pour la Patrie, le jour de son inauguration, une gerbe de fleurs.

La Société que vous représentez, s'est associée par ce pieux témoignage d'admiration, à tous ceux qui, nombreux, sont venus rendre hommage à leur héroïsme.

Votre geste m'a profondément ému et je vous prie de bien vouloir trouver ici, l'expression sincère de ma reconnaissance et de celle de toute l'Ecole, si fière de ses glorieux élèves, si douloureuse aussi de leur sublime sacrifice.

Veuillez agréer, Monsieur le Président, l'assurance de mes sentiments les plus dévoués.

A. BESNARD.

Many wreaths were placed on the monument, the most conspicuous of which were, starting from the left, those given by the Société Centrale des Architectes, the Union de Syndicats d'Architectes agréés par l'Etat pour la reconstruction des régions dévastées. Then our own with the following inscription:—

L'INSTITUT ROYAL DES ARCHITECTES BRITANNIQUES  
A LEURS CONFRÈRES FRANÇAIS  
VICTIMES DE LA GUERRE.

On the pedestal were several bunches of violets, and to the right the wreath from the Société des Architectes Diplômés par le Gouvernement.

As delegate on this occasion, I received many expressions of thanks from architects of distinction, and am happy to state that the action of the Royal Institute was greatly appreciated by our "Confrères français," as witnessed by the following letter addressed to our President:—



## EXHIBITION OF OLD STUDENTS' WORKS AT THE ROYAL COLLEGE OF ART

UNION FRANCO-BRITANNIQUE DES ARCHITECTES,  
PARIS,  
le 15 Décembre, 1923.

A Monsieur le Président de l'Institut Royal des  
Architectes Britanniques.

Aujourd'hui a été inauguré avec la plus grande solennité par M. le Président de la République, assisté de M. Poincaré, Président du Conseil, de M. Bérard, Ministre de l'Instruction Publique et des Beaux-Arts, le Monument élevé à la mémoire des 470 Elèves de l'Ecole des Beaux-Arts, morts au Champ d'Honneur.

Nous ne saurions vous exprimer combien votre délicate pensée de faire déposer une gerbe de fleurs au pied du Monument de nos morts, est allé au cœur des Elèves de notre chère Ecole aussi bien qu'à celui de leurs anciens, les camarades diplômés, parmi lesquels sont nombreux, comme vous le savez, ceux qui s'honorent de faire partie de l'Union Franco-Britannique des Architectes.

Nous y avons tous vu un témoignage nouveau de la sympathie des Architectes anglais envers leurs Confrères

français, une marque de plus, qui s'ajoute à tant d'autres des sentiments de fraternelle amitié qui ne saurait cesser de nous unir.

C'est dans cette pensée que les Présidents de la Société des Architectes Diplômés et de l'Union Franco-Britannique des Architectes se font l'interprète de tous, en vous priant d'agréer avec l'expression de leurs plus vifs remerciements celle de leurs sentiments affectueux pour votre personne et de leur reconnaissance à l'égard de l'Institut Royal des Architectes Britanniques.

Le Président de la Société des Architectes Diplômés par  
le Gouvernement,

(Signed) G. LEGROS.

Le Président de l'Union Franco-Britannique des Architectes,

(Signed) J. GODEFROY.

Such a mark of friendship is comforting and cannot fail to help in the binding together of our two countries so especially necessary to us in the interests of our Art.

## Exhibition of Old Students' Works at the Royal College of Art

BY WILLIAM T. BENSLYN [A.].

### INTRODUCTION.

The difficulty of reviewing this collection is that it is not one, but a series of exhibitions. We must never forget in considering the work of the old Students of the Royal College of Art that popular Art and Science education in this country is essentially an Albertian offshoot of Victorianism.

The promoters of this exhibition have rendered a notable public service in showing how many of the leading artists have benefited by the sustenance provided by a benevolent Government. Let not the children of the Philistines gibe because they have seen many of the best things before. This exhibition is really a study of Art evolution.

The outstanding things in the exhibition are the painting, etching and sculpture. The crafts are by no means fully represented, probably because the finest examples are either in buildings or in the hands of enlightened collectors.

### PAINTING

The standard of the painting is good.

We particularly admire the work of Mr. William Shackleton as shown by his Nos. 306 and 316, *The Song of the Morning* and the *Song of the Evening*. In these he has caught the very life of air and sunshine which the ancients loved so intensely. His aerial perspective bears comparison with Turner's. Mr. Philip Naviasky exhibits a wonderful portrait of a child, dignified because of its absolute sincerity and simplicity, No. 263, *Jeanie*. Mr. G. R. Woolway is at his best in his delightfully "fresh" view of Kensington Gardens. We feel that he must have painted this with an appreciation of the Gardens which has grown subconsciously during many walks there. We trust that this is only a beginning of a series of his fine landscapes. He also exhibits his well-known sketches from mural decorations and some portraits. In *The Night Passeth, the Day Cometh*, Mr. Harry Morley shows that he can tackle a great subject with dignity and restraint. We have

watched Mr. Morley's progress during recent years with great interest. Mr. W. G. de Glehn's *Portrait of Madeleine Quenio*, No. 299, is a fine example of confidence and directness. The hands are particularly beautiful. No. 298, *Fancy Dress*, by Philip Connard, is a magnificent piece of swagger. Mrs. Lena George exhibits several paintings of the new buildings at Delhi, which are interesting not only in subject, but in the admirable realisation of heat which they convey. No. 321, a portrait of Miss Winifred M. Knights by Arnold Mason, is quite up to the standard of his best work, and is one of the best portraits we have seen during recent years. Mr. Mason also exhibits an interesting small Italian sketch.

The following are all worthy of notice:—No. 75, by Beth Amore; 124, *Siller Birks*, by John M. Aitken; 123, *Christchurch*, by Paul Fripp; 152, *Roma (on the Tiber)*, by J. T. Gilroy; 170, *Ashurst Mill, Sussex*, by Constance E. Brown; 179 and 191, two amusing studies, one of Mr. Lloyd George and the other of Mr. Baldwin, by L. G. Illingworth; 206, *On the Rother, Rye*, by A. Winter Moore; 245, *Delphiniums*, by Muriel O. Goulden; 240, *A Ride on the Gate*, Walberswick, Suffolk, by Walter Wallis; 256, *Church at Montreuil-sur-Mer*, by James Clark; 261, *The Mountain Side*, by Osmund Pittman; 280, *The Moonlit Stream*, by Christopher Williams; 318, *Dahlia's*, by A. K. Browning; 341, *Florence—Ponte Vecchio*, by Giffard H. Lenfestey (beautiful lighting); 378, *The House on Props, Polperro*, by H. E. Stanton; 386, *Versailles*, by Alfred Hartley, R.E.

Many of those mentioned above have been trained by the late painting professor, Gerald Moira, and their works are the greatest compliment that can be given to him.

### SCULPTURE

The Sculpture section of the Exhibition is really a monument to the splendid teaching and unfailing sympathy of the late Professor E. Lanteri. The Committee have been fortunate in obtaining the loan of No. 419, *Cassandra*, and No. 431, *A Child*, two of the best things

## JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

produced by the late J. Harvard Thomas. The *Cassandra* is quite modern, and yet possesses all the sculpturesque qualities of the best Greek work of the archaic period. Miss Anne Acheson exhibits some delightful lead garden figures (Nos. 423, 430), which we think architects could easily incorporate in their schemes instead of continually using antiques or antique reproductions. Mr. C. Pibworth's statuette of Beethoven, No. 472, is one of the best things he has done.

The works of Mr. F. Derwent Wood, Alfred Gilbert, Albert Toft, David McGill, Gilbert Ledward, and R. Goulden are too well known to need any comment of ours.

### ETCHINGS.

The etchings and engravings of the Exhibition are a brilliant testimony to the excellence of the work of the Royal School of Etching, which has for so many years been conducted by Sir Frank Short and Miss Constance M. Pott.

Sir Frank is represented by a number of works, but we do not remember ever having seen anything equal to his *Morning Haze in Chichester Harbour*, No. 650. This aquatint has successfully surmounted all technical difficulties, and gives one a wonderful sense of space. Miss C. M. Pott's exhibit, *Knaresborough*, No. 647, is quite up to her usual high standard. One of the most interesting exhibits from an architect's point of view is No. 645, *The Acropolis, Athens*, by Miss M. A. Sloane. This view gives the feeling of ruined Greece better than acres of elaborate archaeological restorations. Nos. 614, 622 and 623, by the same author, are beautifully drawn. Mr. Lee-Hankey is represented by some of his best work. One of the most charming things in the whole show is Mr. H. E. Stanton's *Carnival*, No. 620. No. 608, *The Turnpike Farm*, by Mr. E. Marsden Wilson, is an example of clean, direct etching, and might well serve as a model for architectural perspectives. Mr. Martin Hardie exhibits a delightful view of the Isle of Wight, No. 642, but the work that appealed to us most was Mr. Malcolm Osborne's No. 656, *Trekking of Salonica*. This work will serve as a record of those innumerable migrations which the dwellers of the Styrian Plain take as casually as we do an ordinary railway journey. It is scarcely possible that Mr. Osborne could have done this fine piece of work but for the Great War. Mr. George Atkinson has sent his mezzotint portrait of the late Lord Justice Fitzgibbon (No. 682), a magnificent piece of work which carries on the tradition of fine mezzotints of distinguished judges and Lord Chancellors. Mr. Fred Richards is only slightly represented by Nos. 688 and 699. We hope that Mr. Richards is not getting too busy to find time for his etchings. Mr. Philip Naviasky exhibits a fine drawing of an old French sailor, No. 698.

### CRAFTS.

The outstanding piece of craftsmanship is a simple piece of writing, No. 846, superbly written on vellum. This is as fine a piece of lettering as we have seen either ancient or modern, and must be a great source of joy to Edward Johnstone, the author of the standard work on Writing and Illumination. Although simple in scope, it is as nearly perfect as a human work can be, both in conception and in execution. Mr. Fred Herrick sends a collection of his fine "Underground Posters." We went to

the Exhibition by tube, and on the way saw Mr. Herrick's latest poster, which has recently been added to the "Underground Art Gallery." Mr. R. A. Wilson exhibits an interesting decoration for a painted music room, No. 879, rather futuristic in feeling. Mrs. H. J. Edgar has sent a beautiful design for printed cretonne, No. 865. Mr. J. Platt has sent some of his splendid woodcuts, Nos. 818 and 823. Miss M. B. Preston exhibits a delightful little corkcut, No. 802, *The Roundhead*. Miss M. Walker is also well represented. Mrs. Margaret Woolway has sent one of her beautifully refined pieces of illumination, No. 845. We like especially Miss D. Martin's embroidery curtain, Case No. 945. Mr. H. Parr has sent one of his splendid pottery figures, and Mr. Charles Vyse has sent several. They are really delightful. Mr. W. Wheeler has sent a carved newel post, No. 463. When we think of the number of terrible newel posts which are erected each year, we cannot but regret that more are not carved by Mr. Wheeler. The President of the Old Students' Association, Mr. Alexander Fisher, has sent a magnificent collection of enamels, all of which rise to his well-known high standard. Case No. 466 exhibits the work of Mr. Omar Ramsden.

Although we appreciate the great difficulties under which the committee have laboured in making this collection, we should very much have liked to see the work of certain deceased students represented, more especially the wonderful craftsmanship of the late R. O. Pearson, the drawings of the late A. Peters, and some of the paintings and etchings of the late H. Boardman Wright.

We wish to express our appreciation of the hard work which all the Committee have done, and especially that of the Assistant Honorary Secretary, Mr. Endymion L. Mackenzie.

## Lecture on Acoustics at Scientific Novelties Exhibition

Mr. Hope Bagenal (Associate), lecturing at King's College, on January 1, on the Acoustics of Buildings, said that it was important for the general public to dismiss popular notions on the subject and to formulate requirements that were not conflicting. It was not possible, for instance, to get good chamber music effects in the Albert Hall, nor was it easy to design a building that should be equally good both for choral music and for the speaking voice. It might happen to anyone that he or she be called upon to speak in public. Speech was a progression of syllables, and if the syllables were distinguished and emphasised, the words would look after themselves. Good hearing was dependent at least as much upon the speaker as upon the auditory.

Some speakers preferred open-air conditions, and some speakers preferred Church conditions. Here at the outset was a fundamental distinction. It was a distinction between the man who liked to rely upon his own voice for power, and who liked the distinctness of syllables experienced in the open air, and the man who preferred the reinforcement given to his voice by a building, even at the expense of good articulation. Corresponding to these two preferences there were two types of auditory—namely, the

Greek theatre embodying open-air conditions and the Gothic cathedral embodying extreme Church conditions. In the Greek theatre people could listen to dialogue at 200 feet. When we consider that the remotest seat in His Majesty's Theatre is 95 feet from stage, this must appear as a great achievement. Good hearing in a building is not quite a scientific novelty. On the other hand, the Gothic cathedral, converse of the Greek theatre, developed choral music to its highest achievement in the polyphonic music of Vittoria, Palestrina, and the great English masters. Mediaeval music was the direct outcome of the acoustic conditions of the cathedral. This music can be heard any day at Westminster Cathedral. It is different from modern music in having no strict time element and does not proceed by beats. The long reverberation of the church is part and parcel of the musical effect. In a large cathedral the reverberation may be five seconds for a syllable or ten seconds for a note on the organ. The rate of speech is roughly four syllables a second. This means that in a lively sermon in a cathedral syllables assembled on the ear twenty at a time. New preachers in St. Paul's cathedral used to be warned that their sermons must consist of only half the number of words that they would use in a parish church. It is not possible in a cathedral to get both distinct utterance and, at the same time, the fine tone effects of the best choral music. In the Greek theatre, on the other hand, the reverberation was quite short. The speaking voice was reinforced only by useful reflecting surfaces behind the stage and in front of the stage. The hard-paved orchestra space in front of the stage, not continuously occupied by the chorus, was a most useful reflector. Its value can be experienced at any performance in the Greek Theatre at Bradfield College. All sound reaching the audience was absorbed and not reflected, and the open air roof was also a 100 per cent. absorbing. It was when the classical theatre attained the enormous dimensions of the Alexandrian and Roman period that the strain on the voice caused difficulties. Hence the acoustic vases. Our only evidence for *Echeia* or acoustic vases is the work of Vitruvius, but reinforcement of tones by enclosed volumes of air is perfectly right in principle. The expectation seems to have been that one or other of the vases, designed to respond to notes in the musical scale, would reinforce the vowel sound of the actor.

Commenting on Mr. Bagenal's lecture, Professor W. B. Hodgkinson, of Blackheath, in *The Times*, of 4 January, says :—

"May I suggest that asbestos cloth or fabric is a very efficient deadener of sound waves. Woven glass cloth is almost as good. These materials are quite fireproof." Mr. Bagenal gives us the following note for the R.I.B.A. JOURNAL : "The best and most efficient sound absorbers are slag-wool, 2 in. thick, behind small-mesh wire netting (this is really glass such as Professor Hodgkinson recommends), eel grass, in brown paper envelope, laid in two or three layers, and felt at least 1 in. thick. These materials, however, require screening with canvas. Absorbing materials giving a finished surface are Akoustolith Tile, acoustic plaster, and cork slabs 1 in. thick."

## Allied Societies

### THE RENAISSANCE OF BIRMINGHAM.\*

By RUPERT SAVAGE [F.].

The Renaissance of Birmingham, said Mr. Savage, was not only inevitable in the natural course of growth, but was a movement much overdue. There were few who would deny that Birmingham—the greatest city in England, excluding London—presented an outward aspect unworthy of its commercial greatness. The present state of the city might be summarised as a huge agglomeration of human beings crowded into a formless mass of mean streets and shabby buildings. It had never been planned; it had simply grown in a shapeless form dictated by the apparent needs of the moment. Considering its great size, Birmingham was singularly lacking in fine main thoroughfares, and there were few streets having any pretensions to size or dignity. It was a mass without a nucleus. The main roads leading out of the town were ill-defined and tortuous. There were few open spaces, and such as existed were irregular in plan and devoid of buildings of a monumental or impressive character. The shopping area in the centre of the town was small and inadequate, while in the nearer suburbs there were miles of miserable shops the very existence of which seemed superfluous. Some of the outer suburbs were healthy and pleasant, but older residential districts in the inner wards showed large slum areas which could compete in wretchedness with any town in England. The public buildings were few and scattered, and whatever merit they might possess was largely discounted by an absence of logical grouping.

This might appear a somewhat exaggerated indictment of the city's shortcomings, but he wished to emphasise the evil in order to emphasise the necessity of remedial measures.

A commercial aptitude for buying in the cheapest market and selling at the highest price might lead to acquisition of wealth, but was certainly not conducive to an appreciation of the higher aspect of life; nor did it engender a mental attitude favourable to merely æsthetic considerations. But it was just this commercial spirit which was to-day the great bar to all advancement in purely cultural and æsthetic moods in Birmingham. What was needed was vigorous and enlightened leadership. Mr. Neville Chamberlain recently spoke in strong terms respecting the necessity for civic improvements, but he stressed the social rather than the æsthetic side of the question. Among the ranks of the City Council there were a number of capable and energetic workers in the cause of betterment, but their energies were directed to strictly utilitarian projects, and there were few, indeed, who had any lively conception of the great moral value of abstract beauty. Dealing with those aspects of the "betterment" question which more closely concerned the architectural profession, viz., the improvements in town-planning and street architecture, Mr. Savage said the first step was to arouse the interest and enlist the sympathy of the man in the street. The second step was to make a general survey of future developments. The

\*Presidential Address read before the Birmingham Architectural Association.

third and perhaps the most important, was to ascertain what could be commenced now and accomplished during the present generation. There already existed a number of agencies for arousing the interest of the general public and promoting civic patriotism. It was to be hoped that the united efforts of these bodies, aided by a sympathetic attitude on the part of the civic governors, might ultimately elicit some response from their rather unresponsive fellow-citizens. When they came to survey the programme of future developments, they quickly came up against the fact that they were dealing with a full-grown (if badly developed) town. Town-planning enthusiasts were apt to forget the existence of vested interests and seated industries and seemed to think they were planning a new city on an open plain. In the centre of our town particularly it was impossible ruthlessly to demolish whole thoroughfares and extinguish old-established commercial interests. Courage and foresight were requisite in preparing a scheme for controlling the future development of the town, but there was also need for a judicious blend of idealism and common sense. Unrestricted idealism might become a serious obstacle in actual achievement. The City Council had been engaged for some years on the task of town-planning Birmingham, and much useful work had been done. While they recognised the effort that had been made, they, as architects, were inclined to feel that the work done had been influenced solely by technical considerations, and that the æsthetic aspect of town-planning had been insufficiently recognised. In many towns this work had been placed in the hands of experienced architects, but in Birmingham it would appear that road-making, sewerage and traffic control were the sole consideration. There was a very marked contrast between the status of the architect in this country and abroad. In most European countries and in America the architect was an important factor in all civic developments, and as a result they saw a remarkable difference between their own towns and those they visited in their foreign travels. What they might hope for and plan for in the future development of the city was a complete and comprehensive town plan of the town and suburbs with due regard to the architectural and artistic aspect of the subject. They also hoped to see the erection of a public hall adequate to the needs of the city, and the provision of a really fine exhibition hall to replace the obsolete Bingley Hall. They might see the renovation of the fine Market Hall and the rearrangement of the wholesale markets on a coherent plan.

Something ought to be done in utilising the rivers to form an agreeable adjunct to the street scenery, and in the outlying districts the streams and watercourses might be made pleasant features of the public open spaces. The question of slum clearance and provision of new homes for workers was a matter of urgent necessity.

As to what could be done now, or in the immediate future, as the contribution of their generation to the greater scheme, Mr. Savage urged that the City Council could do a great deal by putting into execution many schemes now under consideration. The most pressing need was for the completion and publication of the town plan for inner Birmingham. The present uncertainty as to street widening and frontage lines was a serious hindrance to

freeholders and building owners alike. The Council might proceed with the planning of the new public square at the bottom of Broad Street and encourage the rebuilding of that street. The scheme for a new thoroughfare across New Street station was a project of the first magnitude, and it was to be hoped would be considered in relation to the remodelling or rebuilding of New Street station, which was at present not only an obstruction but an eyesore. When the greater Birmingham scheme brought within the city's boundaries certain outlying districts, pledges were given for the provision of sundry local conveniences such as public baths, libraries, etc. The prosecution of some of these enterprises would not only tend to the embellishment of these localities, but would provide much needed employment. In the matter of housing the Council could materially aid the orderly development of new or partly developed districts by inaugurating a building policy having some regard to the amenities of lay-out and architectural composition. The present type of new house might be economically sound, but left much to be desired in the matter of design. The freeholders could do much to improve the standard of building by relaxing their rigid attitude and by selling freely to those who desire to build on their own freehold. The prevalent leasehold system was one of the worse causes of poor building in Birmingham. The building owners could do much for the future of the city by taking a wider and more generous view of expenditure on building. Hitherto rent producing capacity had been almost the only consideration. If we were a nation of shopkeepers it was surely not necessary that the acquisition of money should dull our senses to all that was fine and noble in our cities.

#### SOCIÉTÉ DES ARCHITECTES DIPLOMÉS PAR LE GOUVERNEMENT.

The officers elected for 1924 by the S.A.D.G. are as follows:—President, A. Bérard; Vice-Presidents, M. Auburtin, G. Guiard, G. Talbourdeau; Secretary-General, A. Schneider; Treasurer, M. Poupinel; Archivist, A. Jalabert; Librarian, G. Tzakiri; Secretaries, P. Souzy, H. Constant-Bernard, R. Legrand.

#### VISITS ARRANGED BY THE ART STANDING COMMITTEE.

The following is a list of the visits arranged for the Session by the Art Standing Committee. The visits will take place on Saturday afternoons, and Members and Licentiates are cordially invited to attend. Cards for each visit will be issued, and can be obtained on application to the Secretary R.I.B.A., 9 Conduit Street, W.

1924.

26 January.—Bank of England. 23 February.—Derby House. 22 March.—Wembley Exhibition. 26 April.—Kensington Palace. 24 May.—Knole Park, Sevenoaks.

#### VISIT TO THE BANK OF ENGLAND.

SATURDAY, 26 JANUARY 1924.

At the request of the Bank of England authorities the number of members attending this visit must be limited to twenty.



## COMPETITIONS

### QUANTITY SURVEYORS' FEES.

The Practice Standing Committee have drawn the attention of the Council to the practice of certain architects secretly arranging with their Quantity Surveyors for a percentage of the Surveyors' fees to be paid to them. The Council desire to warn Members and Licentiates that such practice is contrary to professional etiquette, is objectionable and immoral, and that disciplinary measures will be taken if specific cases of it are brought to the Council's notice.

### THE R.I.B.A. CERTIFICATE BOOK.

A new edition of the R.I.B.A. Certificate Book (not imprinted with the Seal of the R.I.B.A.) will shortly be ready for sale to architects and others who are not Members or Licentiates of the Royal Institute.

### NOTES FROM THE MINUTES OF THE COUNCIL MEETING, 17 DECEMBER.

#### SHORTAGE OF SKILLED LABOUR IN THE BUILDING TRADES.

The following members have been appointed to represent the R.I.B.A. on the proposed Conference on the Shortage of Skilled Labour in the building trades:—The President, the Hon. Secretary, Major Harry Barnes, Mr. Percy Thomas, Mr. T. H. Milburn, Mr. Herbert A. Welch, Mr. G. Hastwell Grayson.

#### GRANTS.

The following annual grants have been made:—  
The British Engineering Standards Association, £5.  
The British Non-Ferrous Metals Research Association, £15.

#### THE CLASS OF STUDENTS.

The R.I.B.A. Kalendar is to be issued in future to the Students of the R.I.B.A.

#### RETIRED FELLOWSHIP.

The following Members have been transferred to the class of Retired Fellows:—F. W. Tarring and James Jerman.

#### REINSTATEMENT.

The following have been reinstated as Members of the R.I.B.A.:—T. A. Parker [A.], C. E. Tebbs [A.], H. G. Holt [A.].

#### THE TOKYO IMPERIAL UNIVERSITY LIBRARY.

Mr. W. H. Ward, Chairman of the Literature Standing Committee, has been appointed to represent the R.I.B.A. upon the Committee which has been formed by the British Academy with the object of organising (on the appeal of the Foreign Office) a gift of books to the Library of the Tokyo Imperial University Library.

#### ACADEMIC DRESS COMMITTEE.

The report of this Committee (appointed in May, 1923) will be submitted to the general body at the Business Meeting on 7 January 1924. The Council recommend that the proposal be dropped.

### R.I.B.A. PRIZES AND STUDENTSHIPS, 1924.

The Award of the R.I.B.A. Prizes and Studentships for 1924 will be announced at the General Meeting to be held on Monday, 21 January 1924, in the meeting room of the Royal Society, Burlington House, Piccadilly, W.1.

The Exhibition of the works submitted will open on Tuesday, 22 January 1924, in Gallery No. VI, at the Royal Academy of Arts, Piccadilly, W.1, and close on Monday, 4 February 1924.

The Exhibition will be open daily, free to the public between the hours of 10 a.m. and 6 p.m. (Sundays excluded).

### R.I.B.A. (ARCHIBALD DAWNAY) SCHOLARSHIPS.

The Jury for the R.I.B.A. (Archibald Dawnay) Scholarships, in response to a request by the Board of Architectural Education for a report with reference to the nature of the work to be submitted in competition for the Scholarships by students in the third year of the School course, report that in making their awards preference is given to candidates whose work indicates that they have given such due prominence in their earlier studies to structural problems that in their final or third-year work they are able to design their construction artistically in subjects which may involve structural problems, such as large span roofs, bold arching or vaulting, or steel, wood, reinforced concrete work of large dimensions.

Third-year designs which are directed mainly to some artistic effect without regard to the difficulties of construction, durability or maintenance, and which are presented with a few standard details copied from a textbook, are not regarded as indicating the class of study which should be encouraged and extended by these scholarships.

The Jury consider that the divorce of design from construction which is evident from many of the drawings sent in, an attitude which they fear is not unusual in many of the schools, is detrimental to the objects of the R.I.B.A. (Archibald Dawnay) Scholarships.

Subjects should, therefore, be set to third-year students which are in idea constructional problems to be dealt with architecturally, in which the student would show his inventive and imaginative capacity by adapting standard details or the structural principles underlying such details to unusual conditions. This, while not requiring specialisation on the part of the pupil, would deprive him of the easy course of submitting sheets of drawings which are not much better than copies from textbooks.

IAN MACALISTER,  
Secretary R.I.B.A.

## Competitions

### PORT TALBOT: LODGE, MAIN ENTRANCE GATES AND RAILING IN CONNECTION WITH 'TALBOT' MEMORIAL PARK.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime, Members and Licentiates are advised to take no part in the Competition.



## JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

### MANCHESTER GRAMMAR SCHOOL.

The announcement with regard to the appointment of Dr. Percy Worthington as Assessor in the Manchester Grammar School Competition was made prematurely. No decision has yet been made in the matter.

### PALAIS DE JUSTICE, CAIRO.

The Secretary of the Royal Institute of British Architects has been informed that the American Institute of Architects have cabled to Cairo protesting against the Conditions of the above Competition.

### RAFFLES COLLEGE COMPETITION (SINGAPORE).

The drawings submitted in the above competition will be on view to the public during the hours of 11 a.m. to 4 p.m. on Tuesday, the 15th, to Friday, 18th, inclusive, at the office of the Crown Agents for the Colonies, No. 5 Millbank, S.W.1.

### BOARD OF ARCHITECTURAL EDUCATION.

R.I.B.A. (ALFRED BOSSOM) TRAVELLING STUDENTSHIP,  
INTERPRETATION OF CLAUSE 2.

"The competitions will be confined to those students of the Recognised Schools of Architecture which enjoy exemption from the R.I.B.A. Final Examination who, after passing through the School Courses, have attained the Associateship of the R.I.B.A."

The Board of Architectural Education have decided that for the purposes of the R.I.B.A. (Alfred Bossom) Travelling Studentship a minimum attendance of one Session full-time work at a Recognised School shall be taken to constitute membership of that School.

### R.I.B.A. EXAMINATIONS, DECEMBER 1923.

The questions set at the Intermediate and Final (or Special) Examinations held in December 1923 have been published, and are on sale at the Royal Institute, price 1s. 6d. (exclusive of postage).

## The Examinations

### INTERMEDIATE.

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London from 23 to 29 November, and in Leeds from 23 to 28 November. Of the 55 candidates who presented themselves, 28 passed and 27 were relegated. The successful candidates were as follows, the names being given in order of merit as placed by the Examiners:—

USHER: Wilfred [P. 1921], 186 Front Street, Chester-le-Street, Co. Durham.

COLLINS: Tom Anderson [P. 1922], 2 Bancroft Road, Hale, near Altrincham, Cheshire.

OLDACRE: William Bernard [P. 1921], 130 Princes Road, Hartshill, Stoke-on-Trent, Staffs.

McMORRAN: Donald Hanks [P. 1922], 34 Butler Avenue, Harrow-on-the-Hill, Middlesex.

JACKMAN: Frank Leonard [P. 1921], 18 West Side, Clapham Common, S.W.4.

HOWES: James Frederick [P. 1921], Port Vale House, Hertford, Herts.

BIRKETT: Philip Walter [P. 1922], Brier Lea, Carline Road, Lincoln.

TATAM: Reginald [P. 1919], 56, Neville Street, Cardiff.

BAKER: James Barrington [P. 1922], Grove Lodge, Church End, Finchley, N.3.

BALDRY: William Caparne [P. 1920], 69 Forest Road, Nottingham.

BARTER: Alfred Kenneth [P. 1920], 29, Divinity Road, Oxford.

BENT: Frank [P. 1917], Min-y-don, Glan Conway, North Wales.

DALLAS: Vera Mary [P. 1920], 46, Arkwright Road, Hampstead, N.W.3.

DAWKES: William Harry Cecil [P. 1920], Broadway House, Wyndham Road, Abergavenny, Mon.

FORWARD: Maurice Howard [P. 1922], 44 Esplanade, Scarborough.

GISSING: Alfred Charles [P. 1920], Fernleigh, St. Mark's Avenue, Leeds.

GREEN: Frank Stanley Morden [P. 1920], 272 Willesden Lane, Cricklewood, N.W.2.

HATCHER: Basil Ainsworth [P. 1920], 98 Christchurch Street, Ipswich.

HUNTE: Leonard Le [P. 1920], 20 Grove Place, St. Thomas's Green, Haverfordwest.

LAURIE: William Kennedy [P. 1921], "Briantstone," Western Elms Avenue, Reading.

LLOYD: Seton Howard Frederick [P. 1922], 14 Augustus Road, Edgbaston, Birmingham.

LLOYD: William Thomas [P. 1919], 1192 Neath Road, Landore, Swansea.

MORGAN: Brodrick John Morris [P. 1921], 1 Brunswick Place, St. Paul's, Cheltenham, Glos.

PUNCHARD: Stanley Charles [P. 1920], 7 Second Avenue, Heaton, Newcastle-upon-Tyne.

ROBERTS: Arthur Henry [P. 1922], 22 Quarry Road, Wandsworth Common, S.W.18.

ROBERTS: Douglas Hugh Poynter [P. 1920], 21 Grosvenor Place, Bath.

SALT: Geoffrey Wyndham [P. 1921], "The Royd," Selborne Road, Handsworth Wood, Birmingham.

SMITH: Harry Hirst [P. 1921], "Merridale," 6 Hereford Road, Southport.

### THE FINAL AND SPECIAL.

The Final and Special Examinations, qualifying for candidature as Associate R.I.B.A., were held in London from 6 to 13 December. Of the 16 candidates admitted, 8 passed and the remaining 8 were relegated. The successful candidates were as follows:—

BATH: Horace Randolph Hurlle [Special], P.O. Box 58, Nairobi, Kenya Colony.

BUTTON: Eustace Harry [S. 1921], 1 Royal York Crescent, Clifton, Bristol.

CHITALE: Laxman Mahadio [Special], 19 Bedford Square, W.C.1.

FILLMORE: Cecil Ernest Millard [S. 1922], Newhaven, West Bromwich.

GRANT: John Duncan [S. 1912], 19 Lancaster Road, Ipswich, Suffolk.

GREENFIELD: Thomas [Special], Parham Estate Office, Pulborough, Sussex.

KNEWSTUBB: Francis William [S. 1920], "Brackenbar," Graham Street, Penrith, Cumberland.

POWELL: Albert Harry [Special], c/o T. Talfourd Cumming, Esq., King Edward Buildings, Reading.

## NOTICES

# Notices

### THE SIXTH GENERAL MEETING.

The Sixth General Meeting (Ordinary) of the Session 1923-24 will be held on Monday, 21 January 1924, at 8 p.m. at the Royal Society, Burlington House, W.1, for the following purposes:—

To read the Minutes of the General Meeting (Business) held on 7 January 1924; formally to admit members attending for the first time since their election.

To read the following Paper:—"Architecture in Canada," by Percy Nobbs [F.].

To read the Council's Deed of Award of Prizes and Studentships 1924.

See *Notices of Visits arranged by the Art Standing Committee*, p. 160.

## Election of Members

3 MARCH 1924.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 4 February 1924.

### AS FELLOWS (7).

- BUTLER: ARTHUR STANLEY GEORGE [A. 1913], 6 Old Queen Street, S.W.1; Upper Redpits, Marlow, Bucks.  
 CHAIKIN: CAPTAIN BENJAMIN [A., 1918], Allenby Hotel, Jerusalem, Palestine.  
 COWPER: JAMES BERTRAM FRANCIS [A., 1910], 5 King's Bench Walk, Temple, E.C.4; "Olwyns," Wildwood Road, Hampstead Garden Suburb, N.W.11.  
 EDWARDS: SIDNEY JAMES, M.A. Cantab., P.A.S.I. [A., 1912], Galle Face Hotel, Colombo, Ceylon.  
 JONES: NORMAN [A., 1907], 329 Lord Street, Southport; 64 Rawlinson Road, Southport.  
 PATERSON: HENRY LESLIE [A., 1887], Cairns Chambers, 19 St. James's Street, Sheffield; 65, Clarendon Road, Fulwood Park, Sheffield.  
 SADLER: WILLIAM THOMAS [A., 1907], Abbot'sford, 24 Conyers Road, Streatham, S.W.

### AS ASSOCIATES (26).

- BATH: HORACE RANDOLPH HURLE [Special Examination], P.O. Box 58, Nairobi, Kenya Colony.  
 BEECH: GEORGE ALEXANDER [Special War Examination], 12 Burrows Street, Middle Brighton, Victoria, Australia.  
 BROOKE: DONALD, B.Arch. Liverpool [passed five years' course at Liverpool University School of Architecture—exempted from Final Examination after passing examination in Professional Practice], 7 Castelnau Gardens, Barnes, S.W.13.  
 BUTTON: EUSTACE HARRY [Final Examination], 1 Royal York Crescent, Clifton, Bristol.  
 CHAMBERS: ISABEL MAUD [passed five years' course at Architectural Association, London—exempted from Final Examination after passing Examination in Professional Practice], The Priory, Roehampton, S.W.15.  
 CHITALE: LAXMAN MAHADEO [Special Examination], 19 Bedford Square, W.C.1.  
 COIA: JACK ANTONIO [passed five years' course at Glasgow School of Architecture—exempted from Final Examination after passing Examination in Professional Practice], 88 Drummother Drive, Parkhead, Glasgow.  
 CRICKMAY: GEORGE HAYTER [passed five years' course at Architectural Association, London—exempted from Final Examination after passing Examination in Professional Practice], c/o Architectural Association, 34 Bedford Square, W.C.1.  
 CURWEN: JOHN SPEDDING, O.B.E. [S. 1914—Special War Exemption], Highgate, Kendal, Westmorland.  
 FERGUSON: JAMES DONALD [passed five years' course at Glasgow School of Architecture—exempted from Final Examination after passing Examination in Professional Practice], 16 North Avenue, Cambuslang, Lanarkshire.  
 FILLMORE: CECIL ERNEST MILLARD [Final Examination], Newhaven, Hollyhedge Road, West Bromwich.  
 FRY: EDWIN MAXWELL, B.Arch. Liverpool [passed five years' course at Liverpool University School of Architecture—exempted from Final Examination after passing Examination in Professional Practice], 5 Cambridge Street, Hyde Park, W.2.  
 GRANT: JOHN DUNCAN [Final Examination], 19 Lancaster Road, Ipswich.  
 GREENFIELD: THOMAS [Special Examination], Easebourne, Midhurst, Sussex.  
 HARRISON: EDITH GILLIAN (Mrs.) [passed five years' course at Architectural Association, London—Exempted from Final Examination, after passing Examination in Professional Practice], 2 Gray's Inn Square, W.C.1.  
 HIGHAM: ERNEST HARRY HAMILTON, B.Arch. Liverpool [passed five years' course at Liverpool University School of Architecture—exempted from Final Examination after passing Examination in Professional Practice], 25 Bath Road, Bedford Park, W.4.  
 HIRST: HAROLD [passed five years' course at Liverpool University School of Architecture—exempted from Final Examination after passing Examination in Professional Practice], 93 Hale Road, Walton, Liverpool.  
 HUTTON: CHALMERS HENRY, B.Arch. Liverpool [passed five years' course at Liverpool University School of Architecture—exempted from Final Examination after passing Examination in Professional Practice], 10 Town Lane, Rock Ferry, Cheshire.  
 HYSLOP: CHARLES GEDDES CLARKSON [passed five years' course at Architectural Association, London—exempted from Final Examination after passing Examination in Professional Practice], The Vicarage, Kingston-on-Thames.  
 KNEWSTUBB: FRANCIS WILLIAM [Final Examination], "Brackenbar," Graham Street, Penrith, Cumberland.  
 KNIGHT: CYRIL ROY, B.Arch. Liverpool [passed five years' course at Liverpool University School of Architecture—exempted from Final Examination after passing Examination in Professional Practice], 66 Oxford Road, Waterloo, Liverpool.  
 LAWRIE: ALEXANDER FRASER [passed six years' course at Robert Gordon's Technical College, Aberdeen—exempted from Final Examination after passing Examination in Professional Practice], 19 Derby Road, Bertrams, Johannesburg, Transvaal, South Africa.  
 PARKES: STANLEY THOMAS [Special War Examination], 360 Collins Street, Melbourne, Australia.  
 POWELL: ALBERT HARRY [Special Examination], 32 Bridge Street, Reading.  
 SUTHERLAND: THOMAS SCOTT [passed six years' course at Robert Gordon's Technical College, Aberdeen—exempted from Final Examination after passing Examination in Professional Practice], 28 Salisbury Terrace, Aberdeen.  
 VALLIS: RONALD WILLIAM HARVEY, B.Arch. Liverpool [passed five years' course at Liverpool University School of Architecture—exempted from Final Examination after passing Examination in Professional Practice], Hemington House, Frome, Somerset.

## Members' Column

### ROOMS TO LET.

F.R.I.B.A. has two first-floor rooms to let in Bloomsbury. Rent, £50 per annum.—Apply Box 8124, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### RETIREMENT.

Mr. J. W. WILLIS, Licentiate, who has been in charge of the Near East District of H.M. Office of Works for nearly forty years, has retired from the Service. His successor is Mr. Hewlett Edwards, A.R.I.B.A., of H.M.O.W., London, and Ruiship, Middlesex; whose address is now the British Embassy, Constantinople.

### CHANGE OF ADDRESS.

Mr. SIDNEY TOY, F.S.A., A.R.I.B.A., has changed his address to 1 Cloisters, Temple, E.C.

Mr. WILLIAMS-ELLIS, of 22 South Eaton Place, is moving his main office to the old "Viscount Milton School"—22B Ebury Street, S.W.1.—on 15 January, whither all communications should be thereafter addressed.

Owing to business extensions, the offices of Messrs. Ball and Pope, A.A.R.I.B.A., have been changed from 75 High Street to 30 West Street, Weston-super-Mare.

### CHANGE OF ADDRESS AND STYLE OF FIRM.

Mr. H. EDMUND MATHEWS [F.], the sole surviving partner of the firm of J. Douglass Mathews and Son, of 11 Dowgate Hill, E.C.4, has taken into partnership Mr. Geoffrey W. Ridley [A.] and Mr. Basil W. Ridley [A.], and the style of the firm will in future be known as J. Douglass Mathews, Son and Ridley. The firm have removed to larger and more convenient offices at 3 Paul's Bakehouse Court, Goddman Street, St. Paul's Churchyard, E.C.4. The firm has now been established 100 years, having been created by the late Henry Mathews, architect, in 1824, who in 1861 was joined by his son, the late J. Douglass Mathews [F.], under the style of H. and J. D. Mathews, with offices at 10 Cloak Lane, E.C. Owing to the extension of the Underground Railway, the building in Cloak Lane was demolished and the firm removed to 11 Dowgate Hill, E.C., about 1870. In 1886 Mr. H. Edmund Mathews was taken into partnership by his father, under the style of J. Douglass Mathews and Son, at 11 Dowgate Hill, E.C. Mr. Henry Mathews retired in 1886, and Mr. J. Douglass Mathews died in April 1923, so that at one time three generations were working together.

### DISSOLUTION OF PARTNERSHIP.

THE PARTNERSHIP hitherto existing between G. Reavell, F.R.I.B.A., and W. Arthur Tebbs, Licentiate R.I.B.A., architects, Alnwick, is terminated as from 31 December 1923. The practice will be carried on in his own name by the undersigned, to whom all accounts and correspondence should be sent.—G. Reavell, Lloyds Bank Chambers, Alnwick.

### FORMATION OF PARTNERSHIP.

MR. W. ARTHUR TEBBS, Licentiate R.I.B.A., until recently a member of the firm of G. Reavell, F.R.I.B.A., and W. Arthur Tebbs, Licentiate, practising at Alnwick, has joined Mr. W. W. Longbottom, Licentiate R.I.B.A., and will practise at 35 Commercial Road, Halifax.

### APPOINTMENTS WANTED.

LICENTIAE, experienced in London work, seeks an engagement as assistant. Accustomed to preparing working drawings and specifications with calculations for structural steelwork. Thorough knowledge of London Building Acts.—Box 3123, c/o Secretary, R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE, age 36, English and Continental experience, desires working partnership or position of responsibility, all-round experience, energetic and versatile designer. Highest references.—Box 1924, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

## Minutes V

### SESSION 1923-24.

At the Fifth General Meeting (Business) of the Session 1923-24, held at 9 Conduit Street, on Monday, 7 January 1924, at 8 p.m.—Mr. I. A. Gorch, F.S.A., President, in the chair. The attendance book was signed by 33 Fellows (including 14 Members of the Council), 26 Associates (including 4 Members of the Council), and one Licentiate.

The minutes of the meeting held on 17 December 1923 having been taken as read, were confirmed and signed by the Chairman.

The Hon. Secretary announced the decease of the following member:—David Forbes Smith, elected Associate in 1864. And it was RESOLVED that the regrets of the Royal Institute for the loss of this member be recorded in the Minutes, and that a message of sympathy and condolence be conveyed to his relatives.

The following members attending for the first time since their election were formally admitted by the President:—

Percy Morris, James Lochhead and C. G. Soutar, Fellows.

The following candidates for membership were elected by show of hands:—

### AS FELLOWS (6).

ASHTON: ARTHUR, P.A.S.I. [A. 1920], St. Anne's-on-the-Sea.

BROCKLESBY: JOHN SYDNEY [A. 1905].

CARR-WILSON: CHARLES DENNY [A. 1909], Sheffield.

ELTON: PERCIE ION, F.S.I. [A. 1910].

FRERE: EUSTACE CORRIE [A. 1890].

HANSCOMB: CHARLES ERNEST [A. 1910].

### AS ASSOCIATES (2).

BUTLER: AUSTIN RICHARD [Special War Examination], Melbourne, Australia.

HALL: ALEXANDER SERGEANT [Special War Examination], Melbourne, Australia.

The Secretary announced that by a resolution of the Council the following had ceased to be members or Licentiates of the Royal Institute:—

### FELLOW.

W. T. Lockwood.

### ASSOCIATES.

C. E. Cornish, H. Crone, D. O. H. Davies, W. Griffiths, F. Holroyd, A. Oliver, N. S. Robinson, J. R. Sykes.

### LICENTIATES.

W. H. Alton, J. Ballantine, S. P. Brinson, J. Cobban, F. R. L. Edwards, J. Kerr, H. Kirkley, J. H. Porteous, G. A. Turner, J. Vermont.

The report of the Academic Dress Committee was considered, and on the motion of Mr. W. E. Riley [F.], seconded by Mr. W. W. Scott-Moncrieff [F.], it was RESOLVED by 31 votes to 28 that the report be approved.

At a Special General Meeting held on Monday, 7 January 1924, immediately after the Business Meeting above recorded and similarly constituted, a recommendation by the Council for the repeal of the following Regulation under By-law 3 was considered:—

"Every person desiring to be admitted a Fellow shall in all cases submit for examination by the Council, as evidence of his abilities as a practising architect, working drawings, and, if practicable, photographs of his executed works, with such further evidence, if any, as the Council may require. Such drawings and photographs shall be accompanied by a declaration, signed by the applicant, that the buildings to which they relate have been designed by himself."

An amendment having been moved by Mr. W. I. Travers [F.], to the effect that the Regulation should only be repealed in so far as it affected candidates for the Fellowship who were members of the Associate class, was accepted by the Chairman, and the Council's recommendation, as amended, was carried unanimously.

The proceedings terminated at 9.45 p.m.

### R.I.B.A. JOURNAL.

Dates of Publication.—1923:—10th, 24th November; 8th, 22nd December. 1924: 12th, 26th January; 5th, 23rd February; 8th, 22nd March; 5th, 26th April; 10th, 24th May; 7th, 28th June; 12th July; 16th August; 20th September; 18th October.

